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PREFACE

IN THE PLANS for educational reconstruction in the post-war period the reform of higher education is likely to assume an important position. Except in the United States the tempo of reform in this area has been slower than in any other area in education. The war has indicated the importance of trained personnel and leadership; in the social and economic changes which will inevitably follow in the post-war period their importance will be increased.

The twentieth *Educational Yearbook* of the International Institute of Teachers College, Columbia University, is devoted to a series of articles on higher education in the English-speaking countries of the world, which seek to present a review of the status of higher education, the difficulties encountered under war conditions, and the reforms needed to meet the demands of the post-war world.

The preparation under war conditions of a volume of the kind here presented would have been impossible without the generous cooperation of the contributors, already overwhelmed by the demands of the war upon their time and energy. To them and to his secretary, Miss Katherine M. Gilroy, the editor takes pleasure in expressing his great indebtedness for collaboration in the preparation of this volume.

I. L. K.

New York, 1943

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* Died on July 22, 1943.

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INTRODUCTION

IN A PERIOD of recurrent crises which for a generation have threatened to reduce the world to ruin it is natural that the minds of men should be devoted to the formulation of plans to assure peace in the future. Plans for some form of world organization to establish and maintain security and stability of the human race may, however, prove to be worth little more than the paper on which they are written unless attention is devoted to the reconstruction of education. For it will be only as human beings acquire an understanding of the world in which they live that even the best plans to promote the peaceful organization of that world can be anything more than paper constitutions. Their success depends upon the widespread dissemination of intelligent understanding and appreciation of values which education should provide. Education, in other words, cannot be conducted in a vacuum; it must be related to the social structure which it is to serve and that social structure is increasingly becoming coterminous with the world.

The crisis in education is not new. At the secondary level unrest began to be marked some fifty years ago and arose out of a conflict between the old and new subjects; it began to be more serious as the number of students with different types of abilities and interests increased. Higher education was not seriously affected, outside the United States, until after World War I. At this level the unrest took the form of a critical attitude toward the encroachments of new fields of study into preserves hallowed by tradition. It took another form, also, as youth began to revolt against a type of education which failed, in their opinion, to help

them to understand the world in which they lived. That youth should be modernist and of their generation is perhaps not surprising, but in their demand for immediate solutions of the problems of life they tended to consider any ideas or ideals derived from the experience of the past as outworn, outmoded, and impractical. Unable to find answers in the university classrooms, they sought ready-made solutions outside. Their criticisms seemed to arise out of a feeling that there was a divorce between education and life.

The unrest was, however, more far-reaching. The revolt of youth was the result of rapidly developing changes which had begun to manifest themselves in every aspect of life—social, political, economic, and cultural. The authority of tradition which had already been undermined by the modern development of the sciences began to be questioned generally. The progress of science and technology produced a new civilization in which traditional values were felt to have lost their meaning. In the rapid expansion of knowledge and the organization of new fields of study the traditional studies, both in secondary and in higher education, found the severest challenge which they have had to meet for centuries. The expansion of knowledge and the demands for trained and expert services placed new demands on higher education to provide the necessary preparation.

From these forces came the challenge to the modern university to go beyond its traditional purposes of promoting scholarship and research and providing preparation for a relatively small number of professions. The choice opened to the university was to continue in its traditional grooves or to adapt itself to the new demands of a changing social structure. Where the challenge was not met, new institutions began to be established to offer the new types of education which were demanded; where it was met new schools or departments were added to the existing fabric of the university. In either case there developed in the same or in

different institutions a certain conflict between cultural and vocational education. To the objection that the university is not the place to provide vocational education the answer has been given that even the cultural education offered in the past was vocational since it was regarded as an essential foundation for certain professions such as the ministry, teaching, and law.

The issue, however, is not whether the university shall draw a line of demarcation between what is cultural and what is vocational, but whether it can ignore new fields of intellectual activity which emerge from the contemporary changes in civilization and culture. From this point of view the university still has the function of reinterpreting the traditional studies in the light of modern needs, and, if it is not to remain the home of lost causes, of assuming leadership in advancing scholarship and research in any aspect of modern culture in which scholarship and research are needed. The tendency of institutions of higher education to look askance at new fields of study is not new. It is only in relatively recent years that sciences have come to be regarded as subjects of university study; resistance to the adoption of still newer subjects is so patent as to need no illustrations. The expansion of knowledge and the organization of new studies, however, have brought a new danger in their wake—the danger of narrow specialization. Increasing differentiation of studies has destroyed that common foundation of education which made possible a common language of discourse. That destruction is being hastened still more rapidly by the proliferation of special studies. The specialist today may be said to face the world as the blind man the elephant, failing to see life as a whole.

The danger of specialization has long been recognized. It was the basis of the advocacy of a Pansophic College by John Amos Comenius in the seventeenth century as it is of H. G. Wells's proposal of a World Encyclopedia or World Brain in the twentieth. Specialization is today desirable but it will be promoted at

too great a cost to society if at some point in his educational career the specialist does not acquire a realization and an understanding of the bearing of his special field of study on the social and intellectual life of his day. The danger of overspecialization has been described by Ortega y Gasset in *The Revolt of the Masses*:

The most immediate result of the *unbalanced* specialisation has been that to-day, when there are more "scientists" than ever, there are much less "cultured" men than, for example, about 1750. And the worst is that with these turnspits of science not even the real progress of science itself is assured. For science needs from time to time, as a necessary regulator of its own advance, a labour of reconstitution, and, as I have said, this demands an effort towards unification, which grows more and more difficult, involving, as it does, ever-vaster regions of the world of knowledge.¹

If the danger of specialization is genuine, the distinction which has for so long been maintained in education, and which had its origin in Aristotle's discussion of liberal and illiberal education, must be broken down. The two aspects of education—the cultural and the utilitarian, the academic and the vocational, pure science or scholarship and applied science or utility, the speculative and the practical—must be conducted side by side, each invigorating and vitalizing the other. The question which the modern university must solve is whether aspects of life in the past are the proper sphere of academic and scholarly research, while the study of the same subjects which are pressing for solution at the present time should be relegated to technical or other institutions. Should the modern university devote itself to the study of "inert ideas," the mere accumulation of knowledge and information, or should it subject these to the invigorating and vitalizing inspiration which comes from testing theory by practice and inspecting practice in the light of theory? The issue

¹ José Ortega y Gasset, *The Revolt of the Masses*, p. 125 (New York, W. W. Norton & Company, Inc., 1932).

has been tersely put in the phrase of Professor Alfred N. Whitehead that "celibacy does not suit a university." And before Professor Whitehead, Cardinal Newman had suggested the same idea when he defined the concept of intellectual utility as "not useful in any low, mechanical, mercantile sense, but as diffusing good, or as a blessing, or a gift, or power, or treasure, first to the owner, then through him to the world." Both statements may be interpreted as meaning that higher education, like any other level of education, derives its meaning from the cultural environment for whose service it exists. Otherwise, the work of a university would remain in the air and continue to be the privilege of the few who wish to remain aloof from the concerns of the everyday world.

The world is beginning increasingly to place its reliance upon the guidance and advice of the expert, but that reliance can be strengthened only as the expert interprets the theories which he develops in his study or in the laboratory in practical terms of modern life. The aloofness which was characteristic of the university in the nineteenth century helped to promote a certain skepticism which was manifested, on the one hand, in the popular gibes against "brain trusts" and, on the other, in the revolt of youth. The modern university must emerge from its cloistered shelter and provide a type of education in which theory and practice enrich each other. To the degree that the university realizes its obligations to the social structure in which it has its being, to that degree it can become the link between the past and the present and contribute to progress in the future.

Such a realization of its obligations does not mean, however, that the university must surrender that atmosphere of freedom which is the only guarantee of the advancement of scholarship and the conduct of research. Education cannot thrive if it is subjected to control even in the interests of society. The pursuit and advancement of knowledge must be free and untrammelled.

To make the university the handmaiden of politics is to put it into the chains of bondage and to destroy that objectivity by which the bounds of knowledge can be extended. The conversion of the German universities to the service of the Nazi State with its own preconceived needs and demands sounded their death knell and deprived them of their place in the world of scholarship and research. Under Nazi control the German universities have been dedicated to manufacturing apologetics for the Nazi ideologies of war, biology, and the master race. Long before the actual outbreak of the war they had become the centers of preparation for it. Humanistic studies were discarded because the cult of barbarism cannot tolerate the ideals for which humanism has stood. Academic freedom has been described by the leading Nazi philosopher of education as "absolute nonsense," while the thesis of another has been the replacement of the scholar by the soldier type (*die Ersetzung des Gebildeten durch den Typus des Soldaten*). Hence "objective truth," according to the Nazi Minister of the Interior, Wilhelm Frick, "is secondary and not always to be desired," an echo of Hitler's statement that it is the duty of Germans "not to look for objective truth, in so far as it may be favorable to others, but uninterruptedly to serve one's own truth."

The effects of the World War on higher education in the English-speaking countries are clearly presented in this volume. The universities could not escape the impact of a war which threatens the ideals which it is their duty to maintain. It was inevitable in a global war which affects the lives of every man, woman, and child that the universities should have recognized their obligation to make all contributions that would aid in the war effort. Everywhere their work has been disrupted. Students and teachers of military age have been called to active service; others have been drafted for various services that are urgently needed; a small number only have been permitted to continue

their studies or their research work in those fields which are considered to be contributory to the immediate conduct of the war. Rarely, if ever before, has there been the same recognition of the relation of higher education to immediate social needs. Unfortunately those needs are restricted to preparation for the task of destruction.

In a spectacular way the present situation has demonstrated the importance which the sciences and technology have assumed in modern warfare. Their importance in the modern world had been growing apace before the war. It needed only the war to bring out the danger of an overemphasis on sciences and technology, if divorced from those studies which alone can give meaning to life. This danger had already been foreseen many years ago when Henry Adams wrote to Charles Adams that "man has mounted science and is now run away with. I firmly believe that before many centuries more, science will be the master of man. The engines he will have invented will be beyond his strength to control. Some day science may have the existence of mankind in its power, and the human race commit suicide by blowing up the world."

It is paradoxical that in a war which is being fought to preserve the great ideals which man has struggled for centuries to attain, those studies by which these ideals should be transmitted have been suspended for the duration. This in part is a reflection of the disparagement of liberal studies which had been proceeding for some time before the war; it is also a result of the compartmentalization of studies into humanities and sciences, as though the two had no relation to each other. The decline of interest in liberal studies may be due, in part, to failure to reinterpret and adapt them to the needs of the times, and, in part, to an attempt to apply the methods of the sciences to their acquisition. If humanism means the study of everything that pertains to man, every form of intellectual activity—the sciences as much

as the humanities—can be humanistic. Both are devoted to the study of man's relation to his world, and yet each has its own peculiar contribution to make to an understanding of this relation. Man has as much need of the intangible values—the ideals of freedom, justice, tolerance, fair-mindedness—which the liberal studies can impart, as of the objective contributions of the sciences which may contribute more immediately to his material welfare.

Attention is directed in the contributions which follow to the danger of suspending the study of the humanities. It may be enough to draw attention to the danger to avoid it. If, however, the war should continue for several years longer than is at present anticipated, thousands of young men and young women, upon whom will fall the responsibility of reconstructing a distraught world, will have been intellectually disfranchised. They may have received a training in the techniques for restoring the material fabric of the world; they will have been deprived of an opportunity of studying the great purposes which have guided the progress of the world. For it is only as men understand these purposes that they will acquire the conviction that the wave of the future is not what the totalitarians envision it, but that it began as soon as man pictured himself as created in the image of God and realized his worth and dignity as a human being. Science and technology may enable man to accumulate more material goods—although the economic crisis of the period between the two wars proved that science and technology could give no counsel on their equable distribution—but they are not concerned with what makes life worth living. The economic determinists have still to prove that the arts will flourish and culture “boom” when the material goods are adequately distributed. For his ideals man must turn to the wisdom of the race, which the liberal studies should impart.

Referring to a statement by President Ernest M. Hopkins of

Dartmouth that "it would be a tragic paradox if, as a result of the war, we were to allow our system of education to be transformed into the type of education which has made it so easy for a crowd of governmental gangsters like Hitler's outfit to commandeer a whole population," Mr. Wendell Willkie in an address on "Freedom and the Liberal Arts," delivered at Duke University, January 14, 1943, went on to say that

The destruction of the tradition of the liberal arts, at this crisis in our history, when freedom is more than ever at stake, would mean just that. It would be a crime, comparable, in my opinion, with the burning of the books by the Nazis. And it would have approximately the same results. Burn your books—or, what amounts to the same thing, neglect your books—and you will lose freedom, as surely as if you were to invite Hitler and his henchmen to rule over you.

The increasing complexities of modern life, combined with the desire for economic security, have intensified the movement for specialized training at all levels. While specialization is inevitable, there is some danger that in the demand for training for gaining a livelihood education for responsible life as a citizen and as a human being may be neglected. In upholding the importance of liberal education the university can exercise leadership in the development of education at all levels. As opportunities for education and for training for expert services increase, the university will be called upon to play its part in the proper distribution of these opportunities and see to it that those who can contribute most are given most. It will be the task of the university to find new social uses for the trained expert or new channels of usefulness; the university, in other words, must be in and of the community. The university will thus preserve its function as the center for the advancement of scholarship and the conduct of research as well as for the education of those whose services will be devoted to the promotion of social welfare. It is only in this sense that the traditional contempt for

the intellectual, as one cut off from the concerns of the world, can be dissipated.

The university has another opportunity for service in destroying the cleavage which has existed between the educated and uneducated, the intellectual and non-intellectual, by popularizing knowledge. In the field of adult education, which promises to assume greater importance than it has ever enjoyed, the university, in cooperation with other agencies, has a part to play in popularizing its discoveries and in spreading the conviction that the disciplines which are its domain are directed ultimately to bringing practical benefits to man in helping him to understand the world in which he lives. In other words, the university should not be an institution existing in isolation but should stand at the apex of the educational system, setting the standards and ideals for the institutions below it. Ortega y Gasset and Thomas Mann have maintained that one of the difficulties in contemporary life is due to the fact that the masses have accepted the results of modern discoveries without intelligent understanding of the conditions necessary for making them and have proceeded to develop their own philosophies of life without the prerequisite foundations. If this is true, it is equally true that the university and intellectuals have refrained from giving the masses the leadership which they need.

In the widespread movements for educational reconstruction to ensure the preservation of the fruits of the victory that will come, higher education will have a new role to play not only in preserving the ideals for which it has stood—the advancement of the bounds of knowledge in an atmosphere of freedom—but also in assuming responsibility for leadership and training in all aspects of learning for the advancement of human welfare.

HIGHER EDUCATION IN ENGLISH-SPEAKING COUNTRIES

AUSTRALIA

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AUSTRALIA

IMPACT OF THE WAR

Changing conditions.—The Australian universities are not thinking very much in terms of higher education in the post-war period. Brought face to face with the crisis of war, and especially with the threat of invasion, they are, like every other association in the Australian community, trying to adjust themselves to suddenly changed conditions. Apart from the direct impact of war in the way of voluntary enlistment and conscription, Australia has become industrialized to an extent that would scarcely have seemed possible three years ago. Moreover, it must be remembered that, for the first time in her history, Australia has experienced actual warfare on her own territory. Australians have fought in earlier wars—in the Sudan, in China, in South Africa, in France, Flanders, and Gallipoli, but never on their own soil. One wonders whether there were any other people in the world except the Australians who, up to 1942, had never experienced war within their own borders. But now our northern territory of New Guinea has been attacked and entered; our northwestern coastal towns have been bombed; two of our eastern seaports have been shelled, and enemy submarines have entered Sydney harbor. These things could not fail to react on the Australian community, and on the universities which are a part of that community.

This article, therefore, had better begin with some account of the actual impact of the war upon our universities. It may be that the adaptations and adjustments necessitated by the war will have a permanent effect on the universities, hastening changes

that would otherwise have evolved slowly, and even changing traditional outlooks in some directions. But these are matters about which it is impossible to forecast at the moment. Fascinating as it might be to speculate along these lines, this account must be content to be history rather than prophecy.

Students and military service.—Since the war has so greatly affected the universities, it may be as well to indicate the Australian position in regard to military service. From the foundation of the Commonwealth in 1901 until 1911 all defense service was entirely voluntary. In that year universal training for home defense was introduced and the nucleus of a citizen army was brought into being. In World War I there was no fighting in Australia, nor did it appear likely that the country would be invaded. The Australian soldiers who fought in that war fought abroad, and were all volunteers. Twice during the war the people of Australia by referendum rejected the proposal to introduce conscription for overseas service. After the war the militia (as the compulsory citizen army for home defense has come to be called) was reduced in numbers; and in 1929, at the onset of the depression, the compulsory obligation to serve in time of peace was suspended. Obviously this policy was dictated by the current anxiety to reduce national spending. But, with the clouds gathering over Europe, the national government in 1936 raised the strength of the militia, though on a voluntary basis. In September, 1939, with the declaration of war the universal obligation to serve for home defense was automatically re-imposed. Recruiting for overseas in the Army, the Navy, and the Air Force began on a voluntary basis. All our expeditionary troops in this war have been volunteers.

The great majority of university students are of military age. The pressure on them to enlist has been of two kinds. Military service and training for home defense was inescapable save by special exemption granted by the Army authorities. But for over-

seas service enlistment was voluntary, and the pressure here was of the usual kind in such an emergency—recruiting campaigns, newspaper exhortations, vivid posters, and the gathering force of public opinion. Against this background the impact of the war on the universities can be briefly traced.

Terminology.—Since this article will almost certainly be read by more people in the United States than anywhere else, it may be advisable to indicate some differences in American and Australian university terminology. We use the expression “faculty” to denote, not the teaching staff, but a department of university teaching, such as the “faculty of arts” or the “faculty of medicine.” For this purpose the Americans seem to use the word “college.” But we use “college” to denote a residential establishment for housing university undergraduates, equipped with master, fellows, and students, recognized as being attached to the university but being quite independent of the university as regards finance and administration. No university college in Australia is a university in the sense that it gives degrees. Only the universities are empowered to do that. The word “college” is also used in Australia to denote some of the private secondary schools which choose to call themselves by that title.

The war and enrollments.—The actual effect of the war upon attendances at the Australian universities so far has been: (1) to increase slightly the total enrollments in 1940; (2) to decrease these numbers slightly in 1941; and (3) to decrease enrollments sharply in 1942. The slight decrease of 1941 was due to voluntary enlistment. The sharp decrease in 1942 came after the attack on Australia, when the militia forces were expanded far beyond any point reached previously.

During the early months of the war there was a fairly widespread view that university students should not be permitted to volunteer. Their training was held to be so important that it must be continued so that Australia might not lack trained pro-

fessional men in the post-war period. This view, however, could scarcely be expected to commend itself to those outside the universities who had already been affected by war service. They contended that, if the burden of fighting was to fall on the manhood of the country, it should fall equitably. The fact that a youngster had been lucky enough to get to a university was not held to be a sufficient reason why he should escape his civic responsibility of war service. This view particularly commended itself to those who regarded the universities as secluded backwaters in which the young of certain income classes were fitted for the professions they were to follow in after life.

This kind of criticism, together with the growing realization of the seriousness of the war position, tended to change the general view of an undergraduate's duty in war-time. More and more men were being called up for training for home defense. But the military authorities accommodated their claim to the requirements of university studies, and students were, in general, called up for training during the period of the "long vacation" from December to March. Emphasis began to be laid on the Army's need for doctors and engineers, and the country's general need for scientists. Full-time university courses in medicine, science, engineering, dentistry, and pharmacy were placed by the military authorities on the list of "reserved occupations." The practical outcome of this was that students in these courses were not expected to volunteer. Students who had completed a certain proportion of their courses in these studies were urged to go on and graduate. At the same time, human nature being what it is (and Australians are no exception), new students continued to enroll in the "protected" courses. This meant they would graduate in 1944 if they were engineers or scientists, in 1946 if they were studying medicine—not a very cheerful estimate of the duration of the war! In general, the numbers tended to increase in the protected courses and to decrease in other courses.

The end of 1941 brought the Japanese outbreak in the Pacific. The immediate effects of this were to quicken the calling-up of the (conscript) militia forces, and to force home the need for a redistribution of manpower among the national activities. A Department of War Organization was set up by the federal government. Naturally the universities came into its purview, and their responsibilities were plainly pointed out.

The problem of the universities, they were told, was a much broader one than that of merely adjusting themselves to the requirements of the Army. The government's policy of transferring manpower from less essential work to war tasks vitally concerned them. The government required from the universities two specific services: (*a*) investigation and research into particular problems relating to the war; and (*b*) the training of personnel with special qualifications, not only for the armed services, but also for war production and other essential needs. It was made clear that the placing of certain groups of students in reserved occupations was never intended to imply that young men who had been privileged to carry their education to the university stage had any special right to complete their education and prepare themselves for professional careers. The purpose of the system was to ensure a supply of persons with the special qualifications needed in wartime, and not to protect university students as such. Possibly the list of reserved occupations, within the university and elsewhere, would have to be modified as the war situation changed. The demand was not only for manpower in the fighting forces, but also for men and women to serve the industrial war effort. Students who were rejected from the Army and women students could not assume they would be left to finish their university education. Nor could the decision about the most effective use of their students in the national effort be left to the universities themselves; that was the province of the government. It was hinted that universities must become more flexible institutions

than they had been and that they "must be willing to do untraditional things." In particular, two spheres of university activity were desirable. The first was the provision of training for welfare supervisors in industry and social workers (Sydney and Melbourne had already set up machinery for such training; Adelaide followed them in 1942). The second was the expansion of extramural adult education for which the need was greater than ever. It was broadly hinted that the universities might find equally eager, if less immature, students among the men and women who had never attended a university (statement by the Minister for War Organization of Industry at a conference between his Department and the Universities of Australia, at Melbourne, January 19, 1942).

Distribution of students.—The implementation of part of the policy here expressed, and the quickened tempo of conscription resulted in an immediate decrease in the total enrollments in the universities for 1942. As might be expected, the decrease was much more marked among the men than among the women students. But with the continued reorganization of labor to which the national government is being driven, appeals to women for service in war industries, and even in the forces, are becoming more frequent and more urgent. We must expect a steady decline in the number of women students so long as the war goes on. Here are the figures of total enrollments in all the universities during the years of war.

STUDENT ENROLLMENTS IN AUSTRALIAN UNIVERSITIES, 1940-1942

<i>University</i>	<i>1940</i>	<i>1941</i>	<i>1942</i>
Sydney	4,094	4,201 (up 2.6%)	3,106 (down 26%)
Melbourne	4,572	4,427 (down 3.2%)	2,967 (down 33%)
Adelaide	2,443	2,211 (down 9.5%)	1,732 (down 22%)
Tasmania	457	440 (down 3.7%)	354 (down 20%)
Queensland	1,728	1,719 (down .5%)	1,305 (down 24%)
Western Australia	985	845 (down 14.3%)	604 (down 29%)

Not unnaturally, the decrease is more noticeable in the courses and faculties which have not been placed in the category of reserved occupations. Writing at a time when less than half the academic year (which runs from March to December) had been completed, it was not practicable to gather the detailed enrollments for separate faculties for all the universities in 1942. But the following figures for three of them are typical of what was happening.

ENROLLMENT BY FACULTIES

Faculties	Adelaide		Queensland		Tasmania	
	1941	1942	1941	1942	1941	1942
Medicine	213	223	239	231
Science	277	229	175	166	67	53
Engineering	311	270	106	103	25	27
Arts	991	785	530	400	253	206
Law	50	25	26	15	9	7
Commerce	217	74	141	86	86	54

NOTE: Courses in medicine, science, and engineering are in the list of "reserved occupations." Those in arts, law, and commerce are not.

The chief effect of the war upon the staffs of the universities has been one of dislocation. Many of the professors and lecturers are absent on full-time war duties, either with the forces or elsewhere. Many others are giving part-time service. This has not so far seriously disorganized the teaching work of the universities, but naturally it reduces the amount and the quality of the research that is done in laboratories and elsewhere. In this, as we shall see, the war is quickening a tendency that was already in evidence before the war.

Thus the most noticeable result of the war has been to concentrate the activities of our universities particularly upon those studies which are held to contribute most directly to the war effort—the medical and physical sciences. This has evoked the criticism from outside (*Adelaide Advertiser*, June 27, 1942) that "in war-time as in peace-time the universities tend to become little

more than advanced technical schools." If this criticism means that the great majority of university students in Australia are studying science and applied science, the peace-time figures do not bear out the accusation. In the last year before the war the percentage of students in the science and applied science courses was as follows, including only the three universities which provide complete medical courses.

PERCENTAGES OF STUDENTS STUDYING SCIENCE AND APPLIED SCIENCE IN 1939
AT THREE UNIVERSITIES

	<i>Science and Applied Science</i>	<i>Other</i>
Sydney	55%	45%
Melbourne	40%	60%
Adelaide	37%	63%

If, however, the criticism had been that even in peace-time the Australian universities were largely professional schools, the critic would have been nearer the mark. For, even on the non-scientific side, the great majority of students in the Australian universities take their courses for professional and vocational reasons. An arts degree is sought by the majority as a qualification for teaching; and the greater part of those in the courses in economics and commerce are there in the hope of bettering their positions in the world of business.

This is indicative of the general attitude of the Australian community to its universities. They are regarded as schools for turning out the professional men and technicians required by the community. Being so regarded, the universities themselves tend to lay stress upon this function. Very few people in Australia pay any attention to universities as centers of disinterested learning or schools of citizenship. Indeed the different professions tend to regard the university each from its own point of view. Recently the government of Western Australia appointed a judge of the Supreme Court to report on several matters in relation to the university in that state. On one page of his report, dealing with

the law school, one finds the opinion that "the scope of absorption for legal practitioners in Western Australia is limited, and there are already signs that the profession is over-supplied." On the opposite page, reporting on a proposal to establish a medical school, the Commissioner says: "One could make out a good case for cheapening medical services. . . . the medical practitioner in Australia is able to enjoy a much better income than other professionals. . . . What has all this to do with a medical school? The point is that with more practitioners the tendency will be to reduce fees." (The Hon. Mr. Justice Wolff, on "The Administration of the University of Western Australia," in *Report of the Royal Commissioners*, pp. 78 f.)

PURPOSES OF HIGHER EDUCATION

The universities and scientific research.—Occasionally an academic apologist in Australia will break out into a defense of the university as an end in itself, a place where things are found out and recorded quite irrespective of the use to which such discoveries are put. But research is only a derived function of universities in Australia. As in many other young countries, our universities were started as teaching schools to provide the country with technicians and professional men. Their degrees, it was said, "must have money value; they were not to be mere evidence of culture." But even this pragmatic ideal led ultimately to the research function. For teaching demanded research. If the professional students were to be adequately equipped, research would have to be undertaken. This approach led to "applied" rather than to the so-called "pure" research. The latter depended very largely on the personal inclinations of members of the staff. As many of them had been trained abroad, inclinations to research for the sake of research were not lacking. But, to a community of pioneers, such activity did not commend itself very widely. Absorbed researchers were regarded indulgently as people who

were just built that way, and who liked it. Public recognition came rather to those who were delivering the goods in the shape of new fertilizers, new processes, new suggestions for the betterment of public health and the conquest of disease. For gradually it has been borne in on the Australian public that applied research has delivered the goods in all sorts of directions from explosives to television, from poison gas to insulin. This has meant an increased encouragement of this kind of activity, and with it has come a tendency to place specialized research in the hands of special *ad hoc* bodies. As a result a good deal of applied research during the past decade has passed from the universities into the hands of full-time research organizations connected with the Commonwealth Council for Scientific and Industrial Research.

This body, generally known as the C. S. I. R., was founded and endowed by Acts of Parliament (1920-1939) to undertake and coordinate scientific research in Australia. Up to the outbreak of war its work was almost entirely confined to the solution of problems affecting the primary industries, but it is now entering the field of secondary industrial research. Though a government institution, it has received several large benefactions from private donors, with which special departments have been set up, such as the Institute for Animal Health in Sydney and the Forest Products Laboratory in Melbourne. The policy of the C. S. I. R. has always been to leave to the universities what is called pure research. A considerable amount of applied research is, however, still undertaken within the universities themselves, especially in connection with specific foundations, such as the Waite Agricultural Institute in Adelaide and the Bosch Medical Institute in Sydney.

Social sciences.—The corresponding research function in the social sciences is almost entirely left to the personal bent of teachers in these subjects. Sporadic research is undertaken and gets itself published, mostly in article form in periodicals; but there is

little or no attempt on the part of the universities or the community to coordinate such work. It must be admitted that the considerable demands upon the staffs of the universities in the way of teaching, both in the natural and the social sciences, make research work difficult for them, a condition, as we have seen, aggravated by the war. Nevertheless, there are a few hedonists who do undertake research work because they like it, and consider it an indispensable part of the academic life.

Let me now turn to some consideration of our universities as schools of citizenship. Are they to be the guardians of the existing order of things or the midwives of social change? This question, which is debated all over the world, is sometimes argued in Australia, though not very overtly in the universities themselves. Citizens who are directing and profiting by the existing social order are naturally emphatic about the university's function as a conservator of that order. Those who are not particularly at ease in the present state of things just as naturally hold the opposite view. Both these views mean, of course, that university education must become propaganda, but this is not generally admitted by their advocates.

On the whole the governors of our universities tend to listen to the conservative body in the community. For the members of the governing bodies of Australian universities, partly elected and partly nominated, are drawn, for the most part, from that section of society which has already attained a certain solidity of position. Such men are rarely radical in their opinions. Generally they have long since left that stage behind. By the time they become well enough known to be nominated or elected they are as a rule past middle age. Moreover, once elected, it is in practice difficult not to be re-elected. The electors consist of the graduate body, and, in general, they do not approve of turning down a candidate who has already given a term of service. Indeed it has been cynically said that it is easier to get on a university governing

body than to get off it. All this is perhaps truer of the older universities than of those of Queensland and Western Australia which date only from the twentieth century. Here the graduate body is younger and not so professionalized.

Thus, in general, in these assemblies the radical point of view tends to go by default. Conservative opinion is in the ascendant and often a tolerant but apathetic majority is committed by an energetic minority to courses which it may afterwards deplore. Such a situation encourages a predisposition to frown upon the expression of radical sentiments by the undergraduates. This attitude is far more in evidence in Australia than in England, and it has been emphasized by the war.

Academic freedom.—But it must not be inferred that members of the staff in the Australian universities are put under any restraint in the expression of opinion. There is a wholesome tradition of academic freedom in Australia as far as university teachers are concerned. Sometimes disgruntled politicians express their resentment at outspoken declarations of opinion by some professor or lecturer; but, though this may make timid university administrators a little nervous about the government subsidy, such cases are discreetly handled and adroitly shelved. I have been in the service of two Australian universities for more than a quarter of a century, and I have never known any threat of this kind which compelled anyone to alter the incidence of his teaching. Nor have I ever heard of any attempt at dictation by private benefactors.

What we need in Australia is a clearer recognition of the principle that a university should not be an instrument for either retarding or promoting social change. Its duty to society is to train the critical faculties of its students and indeed of its staff as well. It is not the university's business to interfere with the direction in which those trained critical faculties are exercised. This view might not commend itself to those totalitarian countries

which expect their universities to turn out types and which frown upon critical individuals. But we are not yet a totalitarian community in Australia.

The universities and critical thinking.—This raises the question whether our universities *are* training the critical faculties of their students. One part of the answer is that the tendency on the part of university authorities to frown on the expression of radical sentiment among the undergraduates does not induce an atmosphere in which the critical spirit flourishes. Another part of the answer is that many of our students are so wedded to the idea of their university course as merely a preliminary to their profession that they become too busy to do anything but graduate. This, of course, excludes the time spent on sport, time that is very well spent, not only because of its recreative effect on mind and body, but also because the sports fields and the river are two of the very few places in which the Australian undergraduate sees his university as a whole apart from the particular department or faculty in which he happens to be working. Here, too, there is an opportunity for members of the staff to meet students whom they do not themselves teach. It is, however, an opportunity that is seldom seized. Indeed, the lack of close relations between the members of the staff and the students must be written down as one of the failures of university life in Australia. If we could remedy this we might do something to counteract the preoccupation of the students with their own part of the academic field.

Departmentalization and specialization.—Our universities are sadly departmentalized; and this, perhaps as much as anything, prevents us from educating our students as citizens. Entering one faculty, they tend to be left in ignorance of all the others. For the most part we turn out medical men, competent enough in their profession, but with little knowledge of the community they are about to serve; lawyers who have learnt the intricacies of law, but who have never become interested in the social,

political, and international implications of the rule of law; engineers who may be able to harness and control natural forces in the service of society, but who have had no teaching about the human material which will come under their direction.

Moreover, this intentness on their professional studies gives the students a parochial outlook. This is evidenced by the widespread lack of interest in international affairs shown by the majority of them. The war and its immediate background have forced on their attention some aspects of the course of world politics, but, prior to that, comparatively few of our undergraduates showed any disposition to become acquainted with such matters. The lack of Australian-wide student organizations is a contributing factor of this parochialism. Until recently, when the National Union of Australian University Students was established, the Student Christian Movement was the only Australian-wide organization among our students. The former body, as might be expected, is largely concerned with the problems facing Australian students as such—the representation of the student interest on the governing body, adjustment of vacations to make them coincident, questions arising from the curriculum especially in the professional schools. But the National Union of Students neither gives nor pretends to give the sweep of world outlook which the Student Christian Movement is able to maintain. Its regular staff of traveling secretaries, its annual national conferences, its widespread affiliations in foreign countries, and its opportunities of presenting distinguished visitors from overseas to the Australian undergraduate community make it easily the most potent force for spreading international understanding in our universities. Occasional contributions from members of the staff who are interested in these questions, and the activities of International Relations Clubs, which, here as elsewhere, are nourished by the generosity of the Carnegie Endowment for International Peace, help to keep up student interest in world affairs. But the cultiva-

tion of what world consciousness exists in Australian universities has been largely the work of the Student Christian Movement.

Orientation courses.—It is suggested that this preoccupation with professional studies and the parochialism that accompanies it might be overcome to some extent by introducing a composite and compulsory course for the students of the professional schools. Such a course, like the orientation courses in the United States, might include some psychology, economics, world history, explanation of the competing political philosophies in the modern world, reference to the difficulty of administering legislation after it has been passed, and ethics. The suggestion is generally met with the objection that no one person could give such a course at what are reckoned to be university standards. That the objection is made is an indication of how exceedingly specialized and departmentalized we have become. But, in any case, why should such a course be given by one person? Why not two? Why not six?

Relation between secondary and higher education.—Certainly such a course would be a breach in academic tradition in Australia, and that is probably why it is frowned upon. Only very gradually are breaches made in academic tradition. The variations of emphasis on the traditional subjects of study are evidence of this. No Australian university now insists on the classical languages for admission to any of its courses save those in arts and law. Latin is compulsory for entrance to the degree course in law in every Australian university. Sydney, Adelaide, and Queensland insist on Latin or Greek for entrance to the degree course in arts, but Melbourne, Tasmania, and Western Australia do not. Having satisfied the entrance tests imposed by matriculation, it is possible to obtain degrees in every school (faculty) without further study of the classical languages; but a minimum of language requirements (usually English and one other language) is generally demanded for the arts degree. This situation represents

the compromise that has been reached in the various universities between the academic liberals who do not want compulsory classics, and the conservatives who do. Any further liberalization of the entrance requirements will have to come from the augmentation of the liberal element on the staffs. That is taking place very gradually as new men are appointed and the older generation retires. It will not come from outside, since no one outside is sufficiently interested to bother with it.

Mention of matriculation requirements naturally takes one to the relation between higher and secondary education in Australia. The curriculum of the secondary schools is far too much dominated by these requirements, in spite of the fact that only a very small proportion of the pupils go on to the university. Headmasters in Australia are constantly complaining about this; but, since it is open to the secondary schools to make their curricula far more general, why is this not done? The answer seems to be that the Australian community in general has adopted the standard set by the universities for their entrance requirements as its own standard of what constitutes satisfactory education for adolescents. The public tends to judge a school (and therefore to patronize it) according to the results its scholars obtain in the public examinations, these results being regularly published in the daily press. There is much to be said for omitting the names of the schools of the successful candidates in these lists. There would, of course, be some public outcry, but that could be overcome by a combined front of the schools and the universities. Yet whenever this suggestion is made, a number of the headmasters always oppose it. Apparently they are anxious that the public should know how their scholars measure up against those of rival schools in the public examinations.

Perhaps the most dangerous thing about the private secondary schools for boys in Australia is that so many people—professional educators and others—refer with pride to “the type of boy turned

out by these schools." This danger is not, indeed, absent from the universities, to which many of these schoolboy "types" go on to reproduce there the form which made them successful at school. They find in the university no lack of encouragement. The public secondary or high schools are not expected, fortunately for them, to turn out types of this kind. The root of the matter is the view that education is a discipline rather than an experience, and that there is a mysterious intuitive technique of leadership which can be brought out by discipline only. The extent to which our schools and universities are turning out types is the measure of their failure in a democratic community. Let us leave the production of types to the totalitarians. We ought to be producing individuals.

Army and adult education.—An adequate account of the Army Education scheme in Australia cannot be crushed into the tail end of an article like this; but some mention of it might be a heartening epilogue to such an account. After eighteen months of war the Army Education Service was created in 1941. Army education is not one of Australia's discoveries. The Russians and Chinese have practiced it for years. So did the Spanish Republicans. And in general the United Nations have taken it up. The Service has two aims: to sustain morale and to defeat the inescapable boredom of military training; to help toward rehabilitation and repatriation after the war by supplying some vocational training to those who need it and seek it. From the Army's point of view the first aim is all-important. From the point of view of general welfare the second aim is vital. The ideals of the scheme were succinctly defined by the Adjutant General of the Australian Army as follows:

To prevent civil interests and responsibilities from receding into the background; to provide troops with cultural and social facilities; to keep men taken from their ordinary callings posted on the current affairs of their country and the world in general; to help those whose

education has been interrupted to maintain their interest and to progress with it; to advise those who were too young, or who had not the opportunity, to decide upon their profession or trade before their entry into the forces; and to take the first steps towards rehabilitating servicemen in the post-war community.

The Service has been equipped with a special staff whose duties are mainly directive and administrative. Actual teaching is done voluntarily by educationists from schools, technical colleges, and universities. Although the scheme has been actually at work for only a bare twelve months, the response from the men has been very encouraging. For military reasons the number of troops actually undergoing some form of educational training cannot be divulged; but it is certain that this is by far the most widespread experiment in adult education ever made in Australia. During February, 1942, some 392 lectures were given to audiences totaling 70,000. By March the lectures had grown to 550 and the audiences to 84,000. In addition lecture and discussion notes are supplied to groups studying without a tutor, and a pocket-sized magazine of forty-eight pages is distributed weekly on the basis of one to every three soldiers. Films of general educational and special vocational value have been collected, and have been found in some cases a more effective method of education than the written or spoken word. Hobbies have been promoted; bands have been formed; even symphony concerts have been given. Nor has the Service neglected to follow the injured and sick into hospitals and convalescent depots.

Enough has been said to indicate the scope and importance of the work that is being done. But preserving morale and relieving monotony among the soldiers in training is only one aspect of this Service. Another will be the vital work of re-absorbing the soldiers into post-war jobs. A further aspect of this work has not been so much emphasized, and that is the enormous possibilities it will open for adult education in post-war Australia. When

peace comes this Service will have accumulated a mass of materials—books, notes, films, projectors, duplicators—which are the trade tools of the adult educator. It will further have provided a trained staff of administrators with vital and widespread experience in the technique of running adult education schemes. Finally, it will have created an extension of demand for this kind of service far beyond anything we have ever had in this country. Soldiers who have enjoyed lectures and concerts, and who have profited from libraries and classes in camp will want these amenities when they return to civil life.

Australia could enter an era of adult education, the possibilities of which would be literally endless, if, in the post-war period, our educational authorities, and the universities in particular, have the foresight to meet this extended demand by claiming the available material and utilizing the available skill. But will they? Or shall we go back to stand only upon our ancient ways of traditional disciplines and professional training?

CANADA

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CANADA

THE NEW EMPHASIS

The war and problems of higher education.—It was to be expected that the war would throw into sharp relief some of the problems in higher education to which no adequate solution had hitherto been found. The war has done no more than to accentuate these problems. They would have been before us for solution had war not intervened. They will be urgent when the war is over. They are not confined to Canada, for they are in considerable degree independent of the geographical setting. But it is on the Canadian experience that this article is based.

University life in Canada derives from two separate and distinct sources, which have not commingled with the years. They are the British and the French traditions. In language, and in large measure in religious outlook, they remain apart. The British background has many elements—Anglican, non-Anglican Protestant, non-sectarian. The French is single in its insistence on the Catholic faith and scholastic philosophy. These are the backgrounds. Except in the French and English Catholic groups, which hold fast to the Church connection, there is little that is sectarian in the university life of Canada today, and few institutions that have even a nominal connection with any Church. What is left is an individuality in each institution that even to this day reflects to some degree the circumstances of its origin. There is a refreshing independence as between institutions in Canadian university life which will probably be maintained despite the fact that the original causes for distinctive emphasis have long since disappeared.

The new pressure has affected these institutions in varying degree. It has come from an insistence on subjects and professional courses which have a practical significance, and it has resulted in a lessening emphasis on the ideal of a liberal education. It is about this changing emphasis that I wish to write.

The cultural and the practical.—The antithesis between the cultural and the practical has not yet been resolved. There is a growing understanding that the common ground between the two philosophies of education is important, and of greater significance than has hitherto been admitted. The two ideals, in other words, are not mutually exclusive. Cultural education prepares for living. Practical education has to do with a livelihood. In actual experience, however, we cannot separate our fulfillment of the art of living from the way in which we effectively carry out our professional or our business activities. We do not retire into our private room from the shop or the office to be a different person. Life is not just like that; and there is much in education that remains part of ourselves, no matter what the activity in which we may be engaged.

Canada is a country of large spaces, very considerable raw resources, and limited population. The people are of pioneer stock, and of marked resourcefulness and initiative. They have had to apply themselves to immediate practical ends, and have had no mean success in resolving the issues with which they were faced, whether in statecraft or in material development. This is the background that fosters a severely practical education, based on pure and applied science, and on the application of economics to the problems of living. It was to be expected that Canadians would have a special interest in, and aptitude for, such studies, and this has proved to be the case. It is significant, however, that Canadian university education was firmly rooted in the wider cultures, and that only gradually, and under duress, has the practical obtained ascendancy. As an illustration, in the

eastern universities two languages are required for entrance to arts, and one of them must be Latin. In the central universities two languages are required, but Latin is not compulsory. In the western institutions only one language is required, and it may be any foreign language. There is a significance as well in the geographical setting. Canada is progressively more modern in its outlook from east to west.

What is this "modernity"? In essence it is a faith in the cultural value of the subjects which have direct practical significance. It is a denial of the thesis that only through the classics and philosophy can a man achieve cultural understanding. It is a belief that the subjects into which a man throws himself with enthusiasm and zest because of their gripping interest convey their own cultural disciplines. It is, simply stated, the maintaining of the thesis that no subject in itself has inherent qualities of culture, but is effective only in so far as the student finds it possible to use that subject as a means to a better integration into life.

The questionings as to the value of subjects *per se* have been going on for several years. In particular, the years of the great depression threw all thinking people back to fundamentals, and education did not escape the searching process. Funds were severely restricted, and only the essentials could survive. In a more realistic way than at any other time during the past half century the tools of education were scrutinized, and objective criteria were sought by means of which the tools might be tested. Then came the war, and with the war a very special emphasis has arisen which will have significant repercussions.

THE INFLUENCE OF THE WAR

The place of science.—The importance of science in the present world struggle became clear almost at the beginning of the war, and the events that have intervened since that time have only served to emphasize its significance. In Canada particularly,

where materials and munitions play so large a part, technically trained men and research workers are at a premium. Despite all their efforts, the universities cannot produce enough men and women with engineering and scientific background to supply the needs. The armed services are enlarging their technical staff in new directions. A large radio direction-finding corps of skilled technicians has been trained at several Canadian universities, under the wing of the Royal Canadian Air Force, for service in all the branches and on all the fronts of war. The laboratories are filled with research workers in investigations of a highly confidential nature, in collaboration with the National Research Council, which has very wisely decentralized much of its war work into the universities. The munitions industry clamors for engineers. Every capable young graduate has half a dozen opportunities, whether in technical work in the armed forces, or in essential industry. The Ordnance and the Signals Corps enlist men at the end of their third year, and integrate their special training with that of the university until the degree has been obtained, when the men fit immediately into the special branch of either service to which their particular abilities may be adapted. Women students are being pressed into these technical departments of university life, which were hitherto the special preserves of the men. All in all, science training is at a premium.

Engineering.—Because of the universal practice in Canada that engineering students should spend their summer months with engineering firms, in survey work, or in the mines, in order to gain experience as they pursue their studies, it has been considered inadvisable to accelerate the engineering courses to meet the needs of the war. There is a general agreement that, under Canadian conditions, an engineer cannot be trained at a university without the practical experience in the field running concurrently with his academic studies. Some shortening of time is being achieved by taking able students into the course one year

before the end of their high school programs, but with a special summer term in mathematics, physics, and chemistry. In actual practice, however, many students are going out into armed service and into war industry at the end of two years of basic training in engineering, and, when necessary, with special courses in the field which their work demands. When the war is over, they will, it is hoped, desire to complete their work and obtain their qualifications.

Medicine.—In medicine the situation is different. The practical training in the hospital wards and clinics is continuously available, and there is no disadvantage, apart from the strenuousness of the work, in going on continuously summer and winter until the course is completed. That is being done, and the course is shortened in time from six years to four. The men in the two final years—the clinical years—are in uniform and on the pay of the Canadian Army Medical Corps. The need for medically trained men and women is urgent, and there are large waiting lists for entrance into the medical course. All the Canadian schools have registrations limited to the clinical facilities that are available in the respective centers. The demand for medical training is much greater than these facilities can cope with.

Liberal arts.—In arts the position is difficult. While in medicine and in science the federal government has been generous in financing the universities and in providing loans for students whose courses are being expedited, this does not apply to students in arts, if they are pursuing courses in the humanities and social studies. The way has been made freer in some universities for students in the arts faculty to obtain their qualifications in as short a time as their ability and industry make it possible for them to achieve the necessary standing. This is done by permitting a larger load of work in summer sessions and in extra-mural courses than was hitherto considered to be expedient. In the stress of the nation's need, policies which would be argued by

many to be not in the soundest interest educationally must give way to more imperative demands.

Provision for post-war study.—It is to be noted, however, that while the time from first matriculation to the achieving of the degree has been noticeably shortened in several courses in Canada, the actual body of work has not been lessened. The length of the session or term is as heretofore; the time between terms has been abbreviated almost to the vanishing point. The standards are maintained. Canada's experience in the last great war when academic qualifications were granted somewhat freely in return for military service is a rather unhealthy memory, and there is no desire to repeat the experience. The federal government has provided that students whose courses were interrupted by going on active service will have maintenance allowance of \$9.00 per week, if single, and \$13.00 per week if married, in order to complete their university work, provided that the period during which allowance is granted does not exceed the period of active service. This is applicable as well to students who may qualify for entrance to a university within fifteen months after the date of demobilization. The fees will be paid by the government to the universities for all such students whom the Minister may recommend. The provisions are conditional on the student's maintaining a satisfactory standard of scholarship. There will be no impediment in the way of a student completing his course when the war is over and there will be every reason that he should do so. It is in the light of this situation that the Canadian universities have not made academic allowances for war service. If the courses at the end of the war should be expedited in order that the returned men may obtain their qualifications without undue delay, the universities will doubtless stand ready to make the desired arrangement.

Two conditions call for comment. The one is the experience which we are now getting in the matter of the expediting of

courses. The other is the emphasis on science, pure and applied, and its repercussions on the study of the humanities.

Acceleration of courses.—There has been much difference of opinion in educational circles as to the wisdom of permitting a student to go as fast as he is able in the pursuit of his studies. Able students should not be held back to the average pace. On the other hand, time is needed for reflection and for the integration of knowledge. Canadian opinion has been somewhat averse to the rapid route to learning. The economic argument has been consciously or unconsciously of determinative weight. Students had to work during the summer months and this gave time to absorb and digest what had been studied during the winter term. But behind that fact there has been the conviction that the process of learning cannot be hurried, and that reflection and analysis, fundamental parts of the learning process, take time. Mature thought and ripe judgment are no idle terms. In them the element of time—much time—plays its part. We are now having the experience of the quickened tempo and we shall take note of the results. It is not impossible that we may revise our judgment as a result. In any event, there is no justification in holding the able student back. He can safely be permitted to set his own pace.

The future of liberal education.—The war has put its stamp of approval on the scientist, pure and applied. All our abler students are turning toward science, if they are not already in science. The old-time cultural disciplines are in eclipse. It would not be in accordance with the fact to put the whole responsibility on the needs of the war. The tendency was there before the war began. It has been emphasized so sharply during these last three years that we are already asking ourselves what the future has in store. Is the mellow understanding which the arts college has been wont to impart to disappear? Are we to become a race of objective-minded men and women who analyze this problem and that

with the cold, controlled temper of the scientist? What of beauty, warmth, emotion, even prejudice if you will? What of contemplation on the meaning of life, whether expressed by the philosopher or by the poet? What, in a word, of that elusive but very definite ideal, a liberal culture? We have reason to ask ourselves these questions, for education is at the parting of the ways. The scientific cultures open the way to so many fields of professional activity that our young people—very practical minded in a very practical age—go direct from school into severely scientific and technical courses in which subjects of non-scientific content are looked at askance or barely tolerated.

There are many—and the writer counts himself among them—who believe that the end of the war will not see any major change in this emphasis on the scientific and the technical. If that be so, it will be a concern of educational statesmanship to find the way by which the values of the humanistic cultures can be blended into this severely objective kind of education. It is already clear that it cannot be done by insisting on an arts course before entering on the professional studies. That way is too long. It is socially wrong to make it impossible for a young man or woman to found a home and build up family life until the age of thirty has been reached. The arts faculty will be challenged to integrate, skillfully but effectively, the well-tested values which the humanities have inculcated in times gone past, into the modern outlook on life, in which a knowledge of nature and her ways plays so fundamental a part. We cannot begin too soon to think through this difficult problem, for its urgency will not brook delay.

SECONDARY EDUCATION AND THE UNIVERSITY

The high school curriculum.—In Canada the responsibility for education is in the hands of the provinces. This is one of the most important provisions of the British North America Act,

and it ensures for the French Canadians of Quebec their undivided responsibility for their own kind of education—a right which is jealously guarded. It is not possible, therefore, to speak of education in Canada in terms which are applicable from coast to coast, since so much depends on the individual provincial authorities. Universities are more independent, but not completely independent, for they are financed, in greater or smaller measure, by provincial funds. Private schools are a law unto themselves, but even they submit to provincial inspection; and they play only a very limited part in Canadian education. But notwithstanding the fact that each provincial Department of Education acts for itself, there has been a revision of the high school curriculum in practically every province of Canada, to the end that the high school graduate may be the better fitted to meet the demands of modern life. In this revision the emphasis is placed on English, on social studies, and on health, while languages play a less important part than heretofore. Science has an important place, and mathematics in so far as it is needed to support the study of science. Much greater stress is placed on the doing of things in the workshop or the household science room than had been customary in the past. In a word, there is less weight on the academic, and more on the practically useful accomplishments.

It goes without saying that this is not the kind of preparation that the universities have hitherto considered to be the most desirable for the education which they are specially fitted to give. But only a very small percentage of the pupils who enter high school find their way to the universities, while all of them are faced with the problem of integrating themselves into life. The universities can no longer claim the right to dictate what the high school curriculum ought to be. That right was theirs when practically no students went through high school except those who were going on to university studies. We have come

to the time when the universities must adjust themselves to the schools, and the process is likely to prove a somewhat painful experience.

In my opinion there is only one logical and final solution, though one should not be over-optimistic that this solution will be reached without friction. If the schools give an adequate and sound education for life, which is their responsibility, the universities must be willing to accept those who have proved themselves able in mastering that education. There will be gaps in their education from the point of view of the universities. It will be the responsibility of the universities to fill in these gaps. To be concrete: Latin is an excellent medium of education for certain purposes. The student of languages cannot do without it. The lawyer needs it. The researcher in medieval philosophy needs it. But it cannot be claimed that it is a necessary part of the education of all and sundry for the process of living. If, then, an able student who has not taken Latin in the high school wishes to pursue a course in the university for which Latin is considered to be a prerequisite, it devolves on the university to give that student the courses in Latin, even from the beginning, that are necessary. So too with mathematics or French or physics. The all-important consideration, from the standpoint of the university, is that the student is alert and able. The rest is secondary. The reasoning is, in my judgment, logical and conclusive; and there is no other solution in Canada to the problem at issue.

It is implicit in the argument that subjects have less value in themselves than in their relationship to some particular and practical educational end. That is a utilitarian viewpoint, but it is supported by the weight of psychological opinion. We can state with some assurance that a student should show mastery of his own language, should have some knowledge of another language, should have an appreciation of the laws of nature and an understanding of human relationships, should know something of the

quest for ultimate truth, and should have a love for the beautiful in art, in music, and in poetry. If he has this foundation, the means by which he has acquired it is secondary. He can safely go forward into his own professional studies. He will not prove to be an uneducated man.

THE UNIVERSITIES IN NATIONAL LIFE

The university man and public affairs.—The universities in Canada are playing a not insignificant part in the present crisis. The incidence of the war on the direction of studies has already been described. Members of the university staffs have been called on in large numbers to serve on national boards, and to give expert assistance in a great variety of ways. Here and there the demand has been so severe that only a skeleton staff has been left to carry on. It was to be expected that in physics and in chemistry personnel would be heavily drawn on, but the same need for expert help has shown itself in psychology, in economics, in finance, and in engineering. As in the United States and in Britain, the university man has come into his own in applying his wide and accurate knowledge to the practical problems of state. Generally speaking, he is not of the material from which successful politicians are made. He does better in giving expert non-party advice than in the inner councils of the party. There have been notable exceptions in Canada; but as a rule the university man has stood apart from party politics. The close relationship of the university to the state, even when a non-political board of governors stands between, has made the situation a somewhat delicate one, and universities are apt to walk cautiously on dangerous ground. But whatever part university men may play in the future in the political arena, they have won their place in public affairs. Their knowledge and their special abilities have proved to be indispensable.

The Canadian student shows a lively interest in public ques-

tions, and, in particular, in social amelioration. The most active groups in our universities are those who favor left wing policies. They are the active propagandists. It cannot be affirmed that Canadian students have as yet been effective in political movements, as they have been in some European and South American countries. Through their Federation and their Assembly, both of which are nation-wide organizations, they have, however, dealt somewhat effectively with questions in which, as students, they are directly involved. They have kept in the foreground the need for national scholarships, and they were in large measure responsible for the initiation of the scholarships which several of the provinces are sponsoring in cooperation with the federal government. As is the case with the members of the staff, the students of the Canadian universities give weight and direction to the study of international questions in Canada, on which informed discussion in our Parliament has been singularly lacking. The international clubs in our universities are among the most active and well informed of the student organizations on the campus.

The Canadian people have shown their support of the universities in a very practical way. Of our population three out of every thousand go to a university. This is a remarkably high number. In financial contributions as well Canadians have shown their faith in the universities, though in this regard they have not measured up to the generosity of the people of the United States. The possibility of obtaining private benefactions of considerable size is becoming much more tenuous, and the Canadian universities may be compelled to ask the federal government to establish a grant-in-aid policy, such as obtains in Great Britain. The generous support from federal funds which the universities are receiving at the present time to assist in war training projects may point the way to a plan, following the war, in which the federal government can safely take a part without infringing on

the autonomy of the provinces in the responsibility for education.

It would be the desire of all who wish the universities well that they should become a still greater power in the land. In a public way they do not influence opinion markedly. They are, as a matter of fact, poor publicists. But there go out from university halls year by year men and women who have learned to face the issues squarely, and who have the courage to stand for their judgments. In a democracy independence of thought is needed more than any other quality, and it is rare. The universities are sending out young people with that kind of quality, and there are members of staff, not a few in each institution, who cultivate that same attitude of mind. New and stimulating, even daring, thought will not come from anywhere if the universities fail to encourage it. On them a sound democracy must draw for its inspiration and its inner freedom.

UNIVERSITIES AFTER THE WAR

The responsibility for education.—There is much that is far from clear about the situation that we will face when the war is over. We must assume that we will have the opportunity to do the planning, and that our desire is to see a people freely co-operating in goods and services which they supply under a system of full employment, with the minimum of restriction as between the countries of like mind on the basic freedoms. It is obvious that this cannot be done unless everyone gives the highest service of which he is capable. That in turn cannot be given unless men and women are trained to use their own individual abilities. The real resource of a country is its people. They are the medium through which the material resources are transferred into marketable wealth. It is therefore the part of wisdom to develop the human resource to this limit of its potentiality. Anything less is uneconomic. More than that, it is a waste.

This is simply to show that education should be available to all

who are capable of benefiting by it, and to the degree to which they may benefit. It should be the responsibility of the state to see that there is no obstacle, economic or otherwise, in the way of an education suited to the individual needs. In Canada we have still far to go to achieve this ideal. There are many young men and women of real ability—particularly on the farms—for whom a university education is not possible. It has been a very disconcerting outcome of the economic situation in the last fifteen years that the percentage of students from the farms in the university population has gone down alarmingly. Farmers have not been able to pay the fees that universities have found it necessary to impose. Canada has done less than has Britain or Australia or New Zealand to meet this situation. There is need for a widespread system of scholarships which would carry the able boy or girl on to high school or technical school, and to university or technical college. Until this is provided, we will continue to build on a foundation that is insecure for a strong and vital democracy.

If the state accepts this responsibility, it is justified in laying down conditions. There is no need for a much larger university population than we have in Canada today. What is needed is that the right people, and only the right people, be admitted and permitted to continue. For that there are two conditions, and both must be fulfilled. There must be real ability, and there must be intellectual enthusiasm. No student of real ability and enthusiasm should be excluded. No student without these qualities should be included. The state would be in a sound position in insisting on these conditions; for university education is not the only education for life, and those who do not find it profitable may discover another avenue through which they may develop their powers. Nor should there be any desire to build up an exclusively intellectual caste through this free road to higher education. The university conditions are rigid because professional demands are strict and cannot safely be relaxed, and the universi-

ties are the bulwarks of professional efficiency. But the man in the machine shop, the student at the farm school, the factory workman in the Workers' Educational Association classes, the rural group in the Social Credit Union, and the radio discussion circle—all are acquiring an education, and it may be as broadening and as stimulating as that which the university has been accustomed to give. In the world that will seek for better things after this war is over, it will be expected of the university student that he should not only have a mind well disciplined to discern the truth, but a heart sensitive to the cry of injustice or economic disability, from whatever direction it may come. It will not be enough to know; it will be necessary to do. If we are to use our wealth, human and material, aright, we need clear heads, expert judgment, warm sensibilities. These the universities of the future must provide to an even greater degree than in the past.

Canadian unity.—The two races in Canada have lived apart. They have not pooled their resources, cultural and spiritual. The French Canadian philosophy in education is rooted in religion and scholastic philosophy; and the cultivation of language has taken precedence over the pursuit of science. The best fruits of this kind of cultivation are of delicate flavor. The ordinary boy, with no special talent, finds himself somewhat unfitted, by this process of training, for the demands of a scientific age. The English-speaking Canadian system of education has less of the delicacy and refinement, and more of the practically useful for the demands of the Canadian way of life. It is robust and vigorous, even if somewhat lacking in the finer perceptions. There is much that is complementary in the two systems; and it is one of the challenges to the future that a greater integration be achieved between two ways of thinking in education. No one who knows Canada would say that it will be easy to meet that challenge, but all thoughtful Canadians will agree that, unless the challenge is met, Canadian unity cannot be achieved.

ENGLAND

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ENGLAND

I

The Universities of England and Wales

BY

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THE UNIVERSITIES OF ENGLAND AND WALES

HIGHER EDUCATION AND THE STATE

University Grants Committee.—One of the most remarkable of English institutions is the University Grants Committee. It was constituted in 1919, a standing committee set up by the Chancellor of the Exchequer "to enquire into the financial needs of university education in the United Kingdom and to advise the Government as to the application of any grants that may be made by Parliament towards meeting." In 1919 an amount of £1,000,000 was made available for distribution to universities and university colleges in the year 1919-1920. Since that date there have been made periodic increases in the amount of the annual grant, which is now an annual sum of £2,100,000. The committee is made up of university teachers who have retired from active university work and its chairman has always been a man who has gained great distinction as a university administrator. By means of this committee so constituted the government is able to endow universities without controlling their policy or in any way limiting their freedom. There is little doubt that if any other persons or bodies—individual benefactors or local authorities—sought to use their money to limit university freedom, the universities would find in this government committee a champion of their freedom.

The committee is one of the most notable examples of a practice which has become increasingly frequent in English life in the last twenty-five years. The State in other ways—in adult education, for example—recognizes that there are activities whose

welfare are the concern of the State, which nevertheless must, if they are to be healthy, be free from government control. The State must therefore find some means of endowing without controlling them.

A further benefit arises from the existence of this committee. It means that there exists in England a body of experienced university men whose business it is to visit and find out about all the universities of the kingdom, and issue quinquennially a report on the progress of these institutions. These reports are not only statistical; they contain the committee's reflections. We may well, therefore, begin this article by some considerations from their report for the quinquennium ending in 1935.

THE STUDENT BODY

Increasing enrollments.—Let us note first the remarkable increase in the number of students in the universities of England and Wales, which went up from 15,098 in 1900 to 20,992 in 1910; to 36,706 in 1920; and (after declining to 36,676 in 1930) to 40,392 in 1935. The number of women students increased from 2,555 in 1900 to 9,500 in 1935. The proportion of students doing arts subjects has declined slightly in comparison with those doing science. In 1900 the students at Oxford and Cambridge were 0.4 per cent of all the university students of England and Wales; in 1935 they were only 0.25 per cent. There has been a remarkable increase in the number of students doing research degrees. Over 40 per cent of the students are enabled to come to the university by financial assistance from scholarships or grants of some kind. More are given by the universities, by local education authorities, by the national government, and by various trusts and private endowments.

These are perhaps the most striking facts in the progress of the universities of England and Wales in this century. The main lines of that progress are clear: a great increase in the number of

students, which has been an increase in the proportion of students to the population—from 1 in 2,100 in 1900 to 1 in 960 in 1935. The proportion of students to the population in England was still in 1935 lower than in the progressive European countries and much lower than in the United States. Scotland had a high relative proportion. Against this has, I think, to be set the remarkable increase in the standard of secondary education in England, which has marked the last forty years. The entrance examination to the university is now ordinarily passed two years before boys or girls leave school for the university. Most students at Oxford and Cambridge begin working for Honours as soon as they come up.

Democratization of education.—This increase has been coincident with a remarkable change in the section of the population from whence undergraduates come. It is no longer true to say that the universities of England and Wales are confined to the upper and middle classes. Thanks to the development of secondary education since 1904 and to a remarkable system of scholarships from local education authorities and the State, the universities are now open to all sections of the population. This applies even to Oxford and Cambridge, while at least 50 per cent of the students of the other universities began their education at the public elementary schools.

What has happened, then, in these years is a part of the general process of the democratization of England and Wales. University education which, in England especially, had been confined to a small section of the community, has been so extended that most of those capable of profiting by it may have it. This process of democratization has always its advantages and its drawbacks. What has been achieved is not merely that students are now drawn from any section of the population; the remarkable growth in adult education in this century has brought the influence of the universities much more to bear on society.

Universities and adult education.—The part played by the universities in adult education has been remarkable. All universities in England and Wales have extramural departments which work in close cooperation with a body called the Workers' Educational Association. Extramural work is usually governed by a joint committee representing the university and working-class associations. The tutorial classes conducted under such auspices claim, not unjustly, to reach a university Honours standard in their three years' courses. In 1938 there were 779 tutorial classes, with 12,700 students, and 3,117 classes of all kinds with over 60,000 students.

New studies.—The effect of all this on the universities has been striking, especially in economic and social studies. Academic economics have in the past been largely influenced by the questions naturally asked by the professional classes. Most of our younger economists have from their work in this movement had to understand the problems and the point of view of working-class students. This has had a notable effect on the study and teaching of economics and politics in our universities. On the other hand, organized labor in England is increasingly relying on university-trained men for its research departments; university standards of scholarship are having an increasing effect on politics; the universities are more and more recognized by all parties as impartial institutions which can be used to supply the community with the knowledge it requires. This is an extraordinary change from the position the universities had in the community even at the close of the nineteenth century, and it is a great gain.

The civic universities.—Further to the good is the growth in position and prestige of what are called the civic universities—such as Birmingham or Manchester or Liverpool. Apart from Oxford and Cambridge, London and the four colleges of the University of Wales, there are now thirteen such universities or

university colleges in England. Their cities are proud of them and they of their cities. More influence on civic life is important and growing.

These are the more outstanding gains of recent progress. They have been accompanied by certain shifts of interest. The new universities are more predominantly scientific than the old, and their studies have a more technical and vocational bent.

SOME PROBLEMS OF HIGHER EDUCATION

Health of students.—On the other hand, the great growth of the universities in numbers and the change in the sections of the population from which students come have caused certain difficulties. There is now, thanks to the extensive system of scholarships described above, an educational ladder to the universities, but the difficulties of climbing it often mean that students get scholarships at the expense of neglecting their health and neglecting those wider and cultural aspects of education which have no weight in scholarship examinations. There is very widespread dissatisfaction with the working of this examination system. It has been proposed, for example, that scholarships should be awarded more on the lines on which Rhodes Scholarships are awarded and that account be taken of other than strictly academic qualifications. Universities are becoming concerned about the health of their students. The civic universities are only to a small degree residential. The total residential accommodation available at the universities (excluding Oxford and Cambridge) only meets the needs of some 16 per cent of the total student population. A fair proportion of students travel considerable distances to the university every day and miss all those extra activities which mean so much in university life. It is not in the least surprising, therefore, to find universities which are anxious to increase the number of their hostels and to become more residential.

Specialization and departmentalism.—There is general concern also that students hear too many lectures and do too little reading, that they are too much absorbed in their separate courses. There is widespread dissatisfaction with the increase in specialization and departmentalism.


This last problem is concerning all the universities, Oxford and Cambridge included. The demands that our complex modern civilization has created for expert and specialized knowledge have made it increasingly difficult for the student to get that general outlook on life, that wide and informed understanding of civilization which a university ought to give. It is significant that universities came into being to train just those professions, clergy, doctors, and lawyers, who need something more than technical skill if they are to do their work well. The techniques which are taught at a modern university are far more varied, but they also need a general education if they are to play their proper part in the community. The old Oxford classical school, known as Greats, did provide a general outlook of this kind. Since the war Oxford has invented a new Honours school, Philosophy, Politics, and Economics. It was meant to be a study of the principles of modern civilization. The school has been a great success and schools on the same lines have been started in other universities. But though such new schools are important and interesting, they affect too small a proportion of students to solve the problem. The college system as it exists at Oxford and Cambridge is a great help. Our colleges are not specialized to one faculty. We do not have graduate colleges on the American model. The colleges are mostly small enough for students of all faculties, for undergraduates and graduates, to discuss in their rooms or in one or other of the many societies which are such a feature of student life. In the newer universities such societies play a great and increasing part in this informal education.

But even at Oxford and Cambridge there is a demand, coming largely from the students themselves, for general lectures and discussions to supplement or to form a background to specialist studies. It is remarkable and encouraging in how many of the universities the students have voiced a demand for something of this kind. We have not yet gone much beyond dissatisfaction and tentative experiments, but discussion on these problems is so general that there is good hope that we shall find a way out of our difficulties. Anyone who has attended, as I happen to have done, discussions on university problems in students' societies in a number of our universities, must have felt encouragement. There was a real danger a few years before the war that our universities were beginning to produce an intelligentsia in the worst sense of that term. We have not yet suffered to any extent with intellectual unemployment, but we were beginning to turn out from our universities an inferior product, good technicians who were really uneducated. The danger has, I believe, been seen in time.

I may perhaps sum all this up by saying that at one time in England and Wales we concentrated too exclusively on quality in university education and neglected quantity. The years I have reviewed show a preoccupation with quantity, with the problem of making university education available to more of the population. We are now again concerning ourselves with the quality of that education.

Oxford and Cambridge in the national scheme.—There is one more question, though it is a delicate one, about which something ought to be said, and that is the position of Oxford and Cambridge in the new university world. As I noted earlier, the students of Oxford and Cambridge are only a quarter of the students of England and Wales. Oxford and Cambridge have still far more prestige, much larger endowments, and many advantages over the newer universities. They exert more influence

on the life of the country. The new State Scholarships actually help to draw to them students who without them would have gone to a civic university. They are both vigorous and enterprising. The fame of Cambridge science increases steadily. The two Nuffield foundations for medical and social research at Oxford are interesting and bold experiments. But we have not made up our minds and show little sign of making up our minds what the relations of Oxford and Cambridge should be to the newer universities. It has sometimes been suggested that they ought to become exclusively graduate universities. They have become already almost exclusively Honours Degree and graduate universities. But the problem of their relationship to the others has not been solved and, until it is, it is hard to consider our university education as a proper whole.



ENGLAND

II

The Universities of Oxford and Cambridge

BY

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THE UNIVERSITIES OF OXFORD AND CAMBRIDGE

THE UNIVERSITIES AND THE WAR

The stream of the future.—In the stress of total war academic detachment has become a memory; it is hard to see what is happening in the present, harder still to conjecture the future. Nothing is at the present time normal in Oxford and Cambridge: the war is right on the top of them, and they are wholly in it. Most of their scientific teachers are either away, and engaged in research for the Government and the Forces, or they are conducting specialized courses for technical officers; those who are left struggle with the ordinary tuition of the scientists, who are still present in their ordinary numbers, and are not called up for military service. In other subjects many of the teachers have departed to fill posts in the Ministries which the war has brought into existence, and the number of undergraduates, though reduced by 40 per cent and restricted to a single year's residence, is yet too large for the staff that is left and for the accommodation which is available after the partial requisitioning of the Colleges. There is, therefore, so much to do in the present that few have leisure to consider the future; yet all are conscious of changes, of widening outlook, of the inspiration of effort united in a great and common cause. In this atmosphere the best that the writer can do is to look back at the interval between the two great wars, and to attempt some indication of the direction in which the stream of future development may be setting.

Period of expansion.—Between 1918 and 1939 there were at

both Universities a growth in numbers, a great extension of material equipment, and an advance into new fields of study. In each the old classical course maintained its position and prestige, its small decline in numbers meaning no more than that it had shed its weaker students. At Cambridge English was first examined in 1919, geography, which straddles the arts and sciences, in 1920, and anthropology in 1921. Sixteen new chairs were established in the arts subjects, including economic history, political science, two in modern history, and several in modern languages, while in science the new professorships include aeronautics, colloid science, animal pathology, theoretical chemistry, metallurgy, mathematical physics, psychology, mineralogy and petrology, and industrial relations. The number of students rose to more than 500 in both engineering and medicine. The same urge toward the attainment of a closer grip on the modern world and its rapid changes is shown in the increasing tendency to bring history into Triposes not hitherto associated with it. It has found its way into law, English, modern languages, geography, and economics, always with the intention of giving to the student a fuller comprehension of modern civilization and the cultures of modern nations.

It would be wearisome to repeat the same details about Oxford, where apart from the great Nuffield benefactions with their far-reaching effects, which will be spoken of later, there have been established twenty-two new professorships, and where there has been a parallel building of new laboratories, a parallel introduction of new subjects of study, a parallel sense of the practical needs of the time, yet with a difference. The distinction possibly lies in the fact that Oxford is specially sensitive to its place in the Empire, and alive to its responsibility to the whole English-speaking world. Besides the Harmsworth Professorship of American History and the George Eastman Professorship, both tenable by Americans, no less than twelve out of seventy of

Oxford's present professors form a direct link with overseas English-speaking countries, and if heads and fellows of Colleges, demonstrators, and other members of the teaching staff were included, the number would be much larger. A constant interchange between Oxford and the Empire, and only in a less degree between Oxford and the United States, had grown up before 1939, and was still extending when the outbreak of the war intervened to alter the whole situation.

Post-war planning.—And now changes and developments are being planned in the whole educational system of school and university which is to be established after the war, but no responsible statesman has as yet committed himself as to their nature. Reformers, equally ardent, whether skilled or unskilled in their subject, offer their advice almost day by day in conferences, in letters to the newspapers, in magazines, and in books, and there has never been so intense and so general an interest in education in Britain as exists at this moment. It is beginning to be understood that an uneducated democracy can never be a success. A vocal school of "levelers" has emerged who seem to hold that all problems will be solved when the child of the duke and the child of the dustman sit side by side on the same bench in the elementary school. In their enthusiasm they paint the English educational system as much more class-ridden than it is, and in particular they describe Oxford and Cambridge too often as "class-preserves," playgrounds for the idle rich. This is a picture which is ludicrously untrue, and figures, which are very much the same for both Universities, provide a very salutary check on this form of misrepresentation. At Oxford in the last year of peace, 1938-39, out of 4,307 undergraduates there were 352 who had started their careers in the public elementary school, and 2,764 who were in receipt of financial assistance from one kind of public source or another. In 1940-41, after two years of war, the total number of students had fallen to 2,752, but 290 of these

had started from the lowest grade, and 1,675 or 55 per cent of the total were aided by public grants. Of the total in the last pre-war year fewer than 200 were reading for Pass degrees, and those who know the Universities can only smile when they hear the undergraduates as a body accused of either the possession of wealth or the neglect of industry. The State Scholarships, tenable at any University, by means of which the poor student carries his studies to the highest stage, are ever-increasingly taken up at Oxford and Cambridge, and this generous public provision has served to rob the provincial universities of the cream of their students, a result as unintended as it was undesired.

There exists, however, a fairly general agreement that the old universities must be made still more accessible to the poor student, but schemes to give effect to this extension have not been thought out in detail, and those who inquire into the problem find it full of difficulties. There is one simple proposal that all local education authorities should be placed under a statutory obligation to send to the university at the public cost all those who are capable of profiting by such a course, and are debarred from following it by lack of parental means. "Capability" is defined as ability to obtain a First or Second Class in a Final Honour School. This may open the door very widely, and may mean that entrance will be decided by intellectual competition only, and that the undergraduate who pays his own fees will be increasingly excluded. A university which consists solely of those able to achieve success in the examination room will cease to be a healthy mixture of classes and types, and the poor student will cease to enjoy the great advantage of mixing with others not of his own kind. A distinguished scholar, who has himself risen from an elementary school to a fellowship, and through college tutorial work to a professorial chair, has written recently: "I am inclined to think that, when about 50 per cent of the

students are assisted, the point of saturation has been reached. This, I believe, is at present the case. If one went further, two bad results might ensue. First, there would not be enough non-assisted students to provide the 'rough grit' which is needed in a mixture of different types. Secondly, the level of ability and attainment in the added number of assisted students over the present number of about 50 per cent, would not be high enough to justify the expenditure incurred. This, in the interest of assisted students themselves, is one of the most central and important issues in Universities. If I were dictator myself, I think that, both in the interest of the class from which I come, and in that of the whole University and nation, I should fix the proportion at 40 per cent of assisted and 60 per cent of non-assisted students."

It may be argued that it may be possible to meet the difficulty by increasing the total numbers, but neither Oxford nor Cambridge can grow much more. There is practically no room left to build further Colleges, and the College-system is of their essence. It would be a sorry return for the destruction of their unique quality if the only result were the production of a large number of academic "intellectuals" of second class standard, who would find it hard to obtain employment and a living wage. It is hoped, however, that this danger may prove to be unreal. A great development of technical education is planned, and it is proposed that, starting from the earliest age, through the technical high school, and the technical college, this form of education shall carry equality of status and parity of esteem as compared with the older academic courses, and so divert to the advantage of industry and manufacture a stream of ability which now tends to flow into the universities and to find no proper outlet. It can only be stated today that the policy which will be adopted is not yet settled, but the standard which will be accepted as justifying a free place at the university will be high.

Overproduction of intellectuals.—The danger of overproduction of intellectuals, and indeed the whole place of the "intellectual" in the future world, forms a complicated problem both for those who are responsible for the working of universities, and for those who have to plan national systems of education. Overproduction before the war certainly existed. Oxford, for instance, since 1910 has largely developed a class of students for the B.Litt. degree who qualify by pursuing under the guidance of a supervisor a "course of study preparatory to research," and by presenting a thesis in due course. Experience seems to show that there are now too many such students, that the minimum standard is too low, and that the degree is taken largely, as things stand, by second class scholars who wish to acquire some further qualification. In this way many men of mediocre ability are tempted to devote themselves to scientific research. They may have some small original contribution to make, but nothing more, and unfortunately their work, while they are making this contribution, does not improve their qualifications for other kinds of careers. At Cambridge the situation is not dissimilar. There has been there a great increase in the number of research students, more particularly in such subjects as physics, chemistry, metallurgy, engineering, aeronautics, botany, zoology, and mathematics. There, too, the courses have been too "academic," at any rate too sterile in result, and there exists weighty opinion that pure science has been too aloof from the life of the country as a whole. It is thought that the impact of the war on the whole academic structure, which has meant that at the moment there is no normal university life, will be healthy in its ultimate result, and that its effect will be after the war to encourage far more men to go into industrial, government, or service research as compared with the old pure academic type. It is possible that there will be a transfer of ability from mathematics to science. At any rate it is true to say that the university scientists have

been brought into contact with what is going on, and with what is needed, in the industrial and government laboratories in a closeness which they have never experienced before. They have realized, for instance, the difficulties of planning for manufacture, and the existence of a very skilled art of production. Theory and practice will come closer together, and the next generation will be less academically-minded in the bad sense than their predecessors were.

Theory and practice.—It is noteworthy that the same close association of theory with practice is the end specifically defined for all those developments at Oxford which have been made possible by the unexampled munificence of Lord Nuffield. For instance, the benefaction to the Medical School is to promote the progress of medical knowledge, but in such a way as inevitably to facilitate the clinical investigation and treatment of patients, and lead to the provision of more ample hospital accommodation in Oxford. The purpose of this new College, which, but for the war would already have been built, and of which the Warden and Fellows have been for some time elected, is that it shall always be used to foster cooperation between those engaged in some branch or branches of academic studies and those engaged in related practical affairs. There are, therefore, two classes of Fellows—Official Fellows, who are engaged in academic research and teaching, and Visiting Fellows, who are persons competent to assist those engaged in the University work by giving them the fruits of their experience in practice. Already valuable conferences have been taking place under the auspices of this College on subjects connected with economic and social reconstruction after the war, of which the personnel has been drawn in larger measure from the leaders of industry and administration than from the academic world. They have been carried through in an atmosphere of confidence and cooperation, though as yet their proceedings are entirely secret. There exists a very

strong presumption that both at Oxford and at Cambridge the Universities will be much more closely associated with the practical life of the country in its governmental, scientific, and economic problems than ever they have been in the past.

New fields of activity.—There is, therefore, fairly substantial reason for hoping that there will be little overproduction and resultant under-employment of university-trained "intellectuals" so long as standards are kept high, and there is every prospect that these will be raised after the war. Quite apart from all the old avenues to service which will presumably continue to exist, there will certainly be new openings. There will undoubtedly be in the post-war world a much greater demand for skilled planning and administration, not only in the field of national industry, but in other directions too. Many, for instance, think that the best use cannot be made of the land unless there is national control and a directed agriculture. It will be the function of the universities to produce the skilled men who will in various ways control, direct, and inspire this work, here too establishing a fruitful cooperation between theory and practice. In this subject Oxford has just established an Honours School.

There will be a similar increased demand for the development of the British Colonies, too much neglected in the past, and a great work to be done in Africa, perhaps under international control, where development is still only in its beginning, and skilled directors of human activity will be needed on every side. Quite in another quarter there lies a great work to be done in the future. If international controls are to be possible, and world peace is to be securely established, there must come into existence among the nations a real mutual knowledge of each other. It does not exist at present. Even between Britain and the United States it does not exist as it should. It cannot be created by diplomats and consuls, but a great deal can be done by the universities, and by those trained in them. There can be greater

interchange of professors, lecturers, and school teachers, and there ought to grow up after the war institutes of friendship and good will in all countries to spread knowledge and to promote understanding, with no political taint of concealed purpose and no hidden seeking of economic advantage. Such a movement, which is already in its rudimentary beginnings, must be largely manned and directed by those trained in the universities of the respective countries.

Other fields of activity lie open for extended cultivation, and of these the most important is perhaps that of adult education. The days have gone by in which there can be satisfaction with the results of primary or secondary education, if these are all, for the best of school courses can do no more than lay a foundation. Youth in its certainty passes confident judgments on religion, politics, and morals, but lacks the necessary experience which is the basis of a sound view. It has become clear that education, particularly in a democracy, is a never-ending process, and that the intelligent citizen must keep abreast of change. It must be sufficient to point to this field without exploring it, but Oxford and Cambridge, which have done so much pioneer work already, must be the leaders in its further development. As Sir Richard Livingstone says in his *The Future in Education*, "This is a new function for the University—the organization of Adult Study, not for those who have missed education in adolescence and youth, but for those who have had it. We might expect from such developments two most important results. They would be of immense assistance to those long-overdue Sociological Studies, which should be the most important results. They are the only remedy for that chronic intellectual ill-health from which, generally without suspecting it, all of us more or less suffer with advancing years, because we do not take enough mental exercise."

Another field is that of the training of teachers. There the

course needs to be lengthened, reformed, and made less cloistral. This, too, can only be done in the university atmosphere, but it concerns other universities even more than Oxford and Cambridge.

Academic freedom.—The question of academic freedom has not arisen in Britain, and the autonomy of universities is not threatened from any quarter. So far as financial help from public funds is required, an impartial committee, the University Grants Commission, assesses the need over five-year periods; its decisions, which are made with care, are received with confidence. Doubt arises in some minds lest the universities in becoming more and more engaged in the full stream of national life and world movements may grow slack in research, and fail in their highest function, which is the pursuit of knowledge for its own sake. But between research and practical service there exists no necessary mutual exclusiveness. Universities in the coming age will not rise to their full measure unless they set both ideals steadily before them, and pay equal honor to both.

ENGLAND

III

The University of London

BY

T. LLOYD HUMBERSTONE, B.Sc.

FORMERLY SECRETARY OF THE UNIVERSITY OF LONDON

LONDON

THE UNIVERSITY OF LONDON

FOUNDING OF THE UNIVERSITY

London as a university center.—Seated in the two greatest cities of the world, judged by the yardstick of population, the University of London and its counterpart in the New World, Columbia University, share points of resemblance. No pope or bishop has exercised authority or jurisdiction; no whispers of the last enchantments of the Middle Ages come from their towers. Kings of England have granted Royal Charters, William IV in 1836 to the University of London, George II in 1754 to King's College, only begetter of Columbia. A good start in a race, says George Meredith, is a kick from the gods. London made a late start in the academic race, some six or seven centuries behind Oxford and Cambridge, a dominating inescapable fact in the history of English higher education. Medieval London was not wanting in famous schools. From these, as A. F. Leach admits, a university might have developed, as happened in Paris. St. Paul's, unlike Notre-Dame, did not procreate a university! Gresham College, founded by Sir Thomas Gresham in 1548, has retained its restricted scope, possibly owing to imprecations threatened on those who interfered with the founder's design. The four Inns of Court served as a nursery for statesmen such as William Cecil and Francis Bacon and constituted a sort of university. Fortescue, writing in or about 1468, describes the Inns of Court as an academy or gymnasium, in which Knights, Barons, and the greatest nobility of the Kingdom placed their children, "where they learn singing and all kinds of music, dancing, and such other accomplishments and diversions, which

are called revels, as are suitable to their quality." Not for London Francis Bacon's Solomon's House, described in *New Atlantis*, "the Noblest Foundation that ever was upon the Earth, the Lanthorne of this Kingdome, dedicated to the Study of the Works and Creatures of God," the purpose of the foundation being "the Knowledge of Causes and Secrett Motions of Things: and the Enlarging of the bounds of Humane Empire to the Effecting of all Things possible." London preferred a society, the Royal Society, whose first home was in Gresham College. In vain did Daniel Defoe plead in 1728 for a University "where Gentlemen can have academical Education under the eye of their Friends." The letter of Thomas Campbell, the poet, addressed to his dear friend Henry Brougham, and published in *The Times* on February 9, 1825, at last led to action. Note that the impulse for the creation of the University of London came from across the Tweed, Campbell being an alumnus of Glasgow University and Brougham of Edinburgh University. More immediately, inspiration came from Berlin University, founded in 1809, visited by Campbell in 1825. He traveled in a German coach, "bone-shaking and uncomfortable," four hundred dreary sandy miles from Hamburg to inspect the new model; measured the dimensions of the rooms in the palace presented by the King; wished he were a King for the first time in his life that he might present a palace to the nascent University of London. In his famous letter, Campbell outlined a proposal to build and endow a university at a cost of £100,000 for the youth of the middling rich classes. The first prospectus was issued in May, 1826, and the institution was opened two years later in Gower Street with the title London University.

The religious issue.—At an early stage religious controversy arose. The decision to institute theological chairs, both Church of England and Presbyterian, was revoked, and the University was established on a non-sectarian basis, free from religious tests

and without theological instruction of any kind. In 1829 a rival institution, King's College, a Church of England foundation, was established by Royal Charter. Neither possessed the right to grant degrees. After much contention, a Royal Charter was granted on November 26, 1836, to the original London University under the title of University College, and another Royal Charter was granted on the same day to a new corporation, the "University of London," founded "for the advancement of Religion and Morality and the promotion of useful knowledge, to hold forth to all classes and denominations, without any distinction whatever, an encouragement for pursuing a regular and liberal course of Education" and for the immediate duty of granting academical degrees to students of University College and King's College, the first associated colleges named as such in the Royal Charter. Affiliation of colleges was not, however, restricted to the London area, a bold departure from precedent and the seed of future controversy. The Charter provided that institutions could be affiliated in the Metropolis "or elsewhere within Our United Kingdom" and this area was extended in 1850 to include "any of our Colonies or Possessions abroad, or our Territories under the Government of the East India Company." Were the drafters of the Charter influenced by Napoleon's grandiose conception for the University of France founded by decree in 1808, dividing the country into twenty-seven academies? More probably their incentive came from the desire to provide academical degrees for students of all denominations without the religious tests in force at Oxford and Cambridge. The first list of associated institutions published in the Calendar supports this suggestion. Until the abolition of tests at Oxford and Cambridge in 1871, nonconformists provided a fertile field for brilliant students of University College, such as Walter Bagehot and Lister. The University of London, child of religious controversy, suffered one bout within its own walls. That God-

fearing man, Dr. Thomas Arnold, famous Headmaster of Rugby School, was an original member of the Senate. "It must have been a very great thing," Arthur Hugh Clough wrote to J. P. Gell on January 15, 1838, "to see him get up among all those people and declare they must do something to show that they were Christians and that it was a Christian University." The bone of contention was compulsory religious knowledge for the arts degree. Arnold's protest failed and he resigned from the Senate. In 1900 a faculty of theology was established in the University. Religious controversy in higher education in London is dust and ashes, without much likelihood of resurrection. Redress of one grievance—religious inequality in university education—created another, the subordination of London's academic interests.

The University of London was the first university in Great Britain to admit women to degrees on equal terms with men and to give the English language and science their due place in university curricula.

ORGANIZATION AND ADMINISTRATION

Government of the University.—The University of London, having been established without graduates, could not inherit from the medieval university the tradition of self-government and of free, often turbulent, discussion, a tradition more precious than dreaming spires and moonlit gardens. When a substantial body of graduates had come into being the new Royal Charter of 1858 gave graduates of the prescribed standing the right of meeting in "Convocation," and to Convocation the rights of nominating a certain proportion of the members of the Senate, of "discussing any matter whatsoever relating to the University, and of declaring the opinion of Convocation in any such matter," together with the privilege of accepting any new Charter or surrendering an old Charter, afterwards a formidable obstacle to

reform. The government of the University remained vested in the Senate, appointed by the Crown. Another important change discontinued the affiliation of colleges, throwing open the examinations, except in medicine, to all comers. At one stroke the University became "a mere Examining Board," a term of reproach for two generations. The opening of the examinations to all comers invoked a protest from 531 graduates (the total number being between 800 and 900) in the form of a memorial, describing the alteration as "a most important and detrimental change in the Constitution of the University." For some years the problem of a teaching university for London remained in abeyance. During the period 1884 to 1900 two Royal Commissions agreed in deprecating the creation of a second university in London. The Act of Parliament of 1898, followed by the Statutes of 1900 (superseding the Royal Charter), released the University from government tutelage and reconstituted the Senate. The internal and external work were recognized as separate departments, the internal work being restricted to institutions within the London area. The "incorporation" of University College (in 1905) and later of the secular departments of King's College (in 1908) within the University followed. Prospects of a long period of peaceful development faded. A third Royal Commission, the Haldane Commission, appointed in 1910, recommended drastic reconstitution and reorganization, and a further Act of Parliament passed in 1926 followed by Statutes sealed in 1928 have given the University its present constitution.

The University is governed by a small Court responsible for finance and a larger Senate with full academic authority, Convocation retaining its privileges. With the help of the Rockefeller Foundation and other generous benefactors, a magnificent Senate House has been built in Bloomsbury. The foundation stone was laid by King George V on June 26, 1933, a red-letter day for the University, raising the strongest hopes expressed by H. G. G.

Herklots: "The University of London is so amorphous as to escape definition. It seems a collection of universities . . . With the acquisition of the Bloomsbury site it appears likely that it may become the very model of what a city university should be" (*The New Universities*, p. 5, London, 1928).

Finances and enrollments.—Under the new dispensation, public grants are distributed by the University to incorporated and affiliated colleges and institutions. In 1938-39, the last year before the war, the income of the University amounted to £1,090,043 of which about three-fourths was distributed to colleges and institutions. In the same academic year, there were 14,415 internal students, i.e., matriculated full-time or part-time students studying in local colleges divided into faculties— theology, 171; arts, 2,539; law, 421; music, 27; medicine, 3,722; science, 3,982; engineering, 1,806; economics, 1,040; diploma, 950. Associate and research students numbered 388; registered "external" students, 10,570. There were 1,057 "internal" teachers, including 204 professors, according to Government statistics. About 3,000 degrees, internal and external, are granted annually. These impressive figures reflect the intellectual effort stimulated by the University or, to quote the Statutes, the "encouragement for pursuing a regular and liberal course of education."

The foregoing historical *coup d'oeil* appeared to be a necessary preliminary to an examination, however cursory, of the London problem. What is the guerdon for all this effort? Dr. Abraham Flexner writes: "If a university is, whatever its type or form, a highly vitalized organization, vitalized, not by administrative means, but by ideas and ideals, with a corporate life, I confess myself unable to understand in what sense the University of London is a university at all" (*Universities, American, English, German*, p. 231, New York, 1930). An expert on London, H. J. Massingham, recounts that he has tried without success to find the reconciling unity—Baudelaire's *unité intégrale*.

"Either it is not there or I am incapable of searching it out" (*London Scene*, p. 126. London, 1933).

The University resembles its city. There are clashes, local, national, and imperial; collegiate and non-collegiate; between the rival claims of education and of research. When a new institution is proposed for London, the question arises whether it should be associated with the University or be independent. London suffers under serious handicaps in the education of the adolescent owing to physical conditions, noise, lack of sunlight and fresh air, difficulties of exercise, time spent in travelling, and the distractions of a great city. Even Carlyle felt "annihilated in the immensity of that heart of all the world" (letter written to Miss Welch in 1824).

THE PROVISION OF HIGHER EDUCATION

Aims.—Professor Major Greenwood in his presidential address to the Royal Statistical Society (1935), discussing Flexner's four major concerns of a university—(1) the conservation and (2) the interpretation of knowledge and ideas; (3) the search for and (4) the training of students—suggested that "our ideal community must be a relatively small corporation of selected individuals dedicated, some for their lives, all for some years, to an intellectual life." A London professor himself, he disclaimed as a poor, inverted snobbishness that a great city is a good place for the education of the adolescent. "I would gladly see the ancient universities receiving all the youth who, by natural capacity or fortunate circumstances, are the best equipped to profit by the highest intellectual training"—not a serious proposal especially for professional students of law, science, medicine, and engineering.

Size of universities.—Nevertheless, in view of the increase in the number of university students to be expected after the war, new universities and colleges should be established in England.

The experience of other countries, especially of France, proves the danger of concentrating too much of the national life in capital cities. Some great London schools—Charterhouse, Christ's Hospital, and Merchant Taylors—have emigrated to the country. The *optimum* size for a university presents a difficult problem. English standards differ from American standards. Professor Ernest Barker (*Universities in Great Britain*, p. 50, 1931) suggests that under English conditions a university which is not a university of colleges "should not ideally exceed the number of 2,000 students. Otherwise it may tend to the machinery of mere organization." Presumably there is a limit for universities organized in colleges if a proper balance is to be preserved between diverse purposes. That the University of London is tending to become out of perspective, an academic *Diplodocus*, is indicated by the official statistics of full-time students in English universities for 1938-39: London, 13,191; Cambridge, 5,931; Oxford, 5,023; Manchester, 2,462; Liverpool, 2,055; Leeds, 1,757; Durham, 1,709; Birmingham, 1,433; Bristol, 1,005; Sheffield, 767; Reading, 584—a total (including two university colleges, Exeter, 422, and Nottingham, 582) of 37,189 full-time students. Several colleges in London satisfy the standards, personal and financial, for university status set by English provincial universities. If there is to be reorganization on this basis, it should be by agreement "without tears" following an official review of the problem of English higher education as a whole, not hitherto attempted. A reduction of undergraduate work would enable the university to give more attention to graduate and research work, a natural development.

Postgraduate studies and research.—According to Flexner, "A postgraduate development is England's most urgent need" (*op. cit.*, p. 281). The University of London, says H. G. Wells, "has to supply facilities for research, record, and post-graduate work upon an unprecedented scale" (T. Ll. Humberstone, *University*

Reform in London, p. 8, 1926). Huxley's voice cried in the wilderness as long ago as 1892: "The modern university looks forward, and is a factory of new knowledge: its professors have to be at the top of the wave of progress" (*Life and Letters of Thomas Henry Huxley*, edited by Leonard Huxley, 1900, Vol. II, p. 309). How long will the research professor remain *rara avis* in London's academic aviary?

Professor I. L. Kandel, in the *Educational Yearbook*, 1941, admits that "To attempt to prophesy the development of education in the years that lie ahead may be a foolish venture" (p. 254). I have availed myself of the fool's proverbial privilege of asking a question requiring a wise man to answer—"Is the University of London becoming too large?" I pursue the foolish venture by reaffirming that after the war one declared purpose of the University will become of increased importance—"to promote research and the advancement of science and learning." As long ago as 1921, that distinguished scientific researcher, Sir Ernest (afterwards Lord) Rutherford declared that "in the future, the Universities will not be judged so much by the number of their undergraduates or by the extent of their endowments, as by the magnitude of their contributions to knowledge" (Congress of the Universities of the Empire). Some of the London colleges, for instance University College, have great research records. But the facilities for academic research work in London are inadequate. Powerful influences have opposed the establishment of research institutes by the University, the Institute of Historical Research being an honorable exception. The Haldane Commission expressed the view, supported by representatives of the colleges, that research work should be left to the colleges and not assigned to independent institutes and graduate schools of research. In a lecture on "Physicists after the War," delivered at the Royal Institution on March 26, 1942, Sir Lawrence Bragg, discussing proposals for the foundation of institutions for pure

research divorced from teaching, suggested that these proposals should be scrutinized very carefully. "The great asset of university research is the constant flow of young men through the university, bringing their own original and fresh minds to bear on the lines of work of the school to which they come, and of the contacts between men engaged in widely different subjects" (*Nature*, July 18, 1942, p. 76). He added that for the research worker teaching is one of the greatest safeguards against getting stale. In contrast, the separate institute stands in danger of fossilization, especially in its later stages. He admits, however, that the central research institution can provide equipment on an adequate scale and that such a place with a nucleus of permanent staff may accumulate traditions of techniques peculiarly its own and attract researchers for short periods of intense work. A good example of a recently established specialized institute affiliated to the University is the London School of Hygiene and Tropical Medicine in Bloomsbury. The Rockefeller Foundation provided two million dollars toward the cost of the building on the understanding that the Government would accept the responsibility for maintenance, estimated at about £25,000 a year. Mr. Neville Chamberlain, Minister of Health, laid the foundation stone on July 7, 1926. A sister institution, the British Post-graduate Medical School at Hammersmith, restricted to medical practitioners, was opened in 1935. One of the principal *lacunae* in London's research facilities relates to physical science. If there is another great war, we may perhaps presage that its result will be decided by atomic physics. Thanks to the Cavendish Laboratory and the work of J. J. Thomson, Rutherford, and others, the record of Cambridge University in this subject is distinguished. But London does not even possess a cyclotron, the indispensable apparatus.

Another subject peculiarly appropriate for study and research in the capital of the Empire is statecraft in the widest sense. The

Lord Chancellor in August, 1932, appointed a "Legal Education Committee" to advise on legal education and advanced research in legal studies. In their report, published in 1934, the Committee recommended the establishment of an Institute of Advanced Studies "necessarily in London" with adequate library facilities. In the post-war world not only lawyers, but politicians and administrators will stand in need of advice and assistance.

Watchman! What of the night? Dark, cold, stormy! May the dawn come soon—bringing light, warmth, calm, to a stricken world. Sidonius observed centuries ago that it is difficult to write hexameters with six-footed barbarians at your gates. This article is written in a dim light owing to shattered windows. But the light is dim in a figurative sense. Until the results of the war are known—not only military, but social, economic, political—suggestions on academic London must be tentative. A popular song proclaims: "There will always be an England." If England, London; if London, a University of London. In the gloom one may glimpse an academic City on the hill.

Be near us always, but most of all when dawn
breaks and we see thy City on the hill.

(Humbert Wolfe, "Coda" of
The Uncelestial City.)

ENGLAND

IV

The Provincial Universities

BY

JOHN MURRAY, M.A., LL.D., D.LITT.

PRINCIPAL, UNIVERSITY COLLEGE OF THE SOUTHEAST

EXETER

THE PROVINCIAL UNIVERSITIES

ADJUSTMENT TO WAR CONDITIONS

In the early stages of the Great War the familiar slogan, "Business as usual," illustrated a defect and a quality of the British race, its inability for making rapid imaginative adjustments and its instinctive stamina: not so much two things, of course, as two aspects of one. The British cue in emergencies is, "If you can't be normal, be as normal as you can." The nation's adjustment to this war has been cool, deliberate, and methodical; step by step the vast gradual momentum has come into play. In the universities, too, it has been step by step, and characteristically so in the provincial universities, which, despite their diversity, make a fairly uniform group, for their broad outlines and organization follow the plan of the pioneer body, University College, London.

University finance.—In this war, now three years old, the strength of university finance has been not the least of the surprises. The University Grants Committee, which is responsible directly to the Treasury for the apportionment of the State subsidies to a select list of institutions, has suffered no reduction in its total grant, and, while reserving the right to help universities hard hit by the war at the expense of others better placed, it has provided, on the whole, the same substantial backing for each as before; and it has given thereby the same wise and effective lead to the many county councils which help the university institutions of their regions by substantial yearly grants, and by the award of scholarships to individuals. The flow, of benefactions and bequests has sunk, as is natural. The extremely

high level of taxation on large incomes may well be tempting the wealthy to transfer capital of which their ownership is little better than nominal, but few of them, as yet, have taken the step. Fee income, too, has sunk. On the other hand the recruitment of faculty members for the Forces or for government departments or other forms of war work has reduced the salary burden while Parliament has sanctioned a war-time latitude in the use by universities of their resources. Some universities have derived rents from voluntary harboring of groups from government departments, though the requisitioning of university premises, in contrast to the case of some important schools, has not been permitted. In the somewhat confidential matter of finance the universities, to sum up, can be said to be duly weathering the storm. My own College, of which I can speak more freely, has made ends meet comfortably, after paying interest and amortization on its items of debt, throughout the three years, and during August, 1942, was fortunate enough to receive two bequests totaling £70,000.

Problems of evacuation.—But let no one think that the universities have been free from tribulation. The way of the refugee, notoriously, is hard, and King's College, evacuating from London, had its library destroyed in the great hall of Bristol University. Manchester lost its Dental School, Cardiff the Principal's house, Exeter University College its Registry with almost all its papers and records. The specious term, "minor damage," sums up, moreover, serious discomfort and interruption in work from gaping windows, holed roofs, fallen ceilings, broken water, electricity, and gas mains, and the effects of minor fires. Precautions against raids, and repairs after, have absorbed and will continue to absorb considerable sums in material and wages, but a part of these charges has been paid by the University Grants Committee. The inconveniences and deprivations for evacuated colleges working in the congested premises of other institutions are so obvious

as not to need detailing. It is not merely a matter of getting through the essential work in its emergency shape but also of preserving the spirit and the conscious identity of the institution. Dispersed in lodgings in a strange town and "doubling" the use of lecture rooms and laboratories, staff and students have felt that a valuable something has tended to evaporate, though the individual elements of it, the *personnel* numbers, remain. Dispersal may truly be said to have strengthened the sense of "institutionality" by awakening many to the comparative lack of it, and to the need for developing it.

Universities as communities.—It is fair to say that the provincial universities, as compared with the Oxford and Cambridge Colleges and a few other institutions, such as Durham and Reading Universities, are deficient in "institutionality," but it would be unfair not to note the main cause. Reading and Durham are small towns, but almost all the provincial universities are situated in great cities, and draw their students largely from within a narrow but very populous radius. The home ties and the strong local connections of the students work centrifugally in the universities. Students living in their own homes under very diverse domestic conditions are capable of academic domestication only to a limited extent. The "motor-bus university" can hardly be made a sufficient focus of intellectual and social influences, nor can it illustrate "community," a short word for a valuable and distinctive element of education. The English Public Schools, mainly residential, have taught generations of boys, living, working, and playing together under carefully controlled conditions, how to "belong," how under a curious and delicate balance of discipline and self-government to be citizens of the school community, and to learn citizenship in advance against the day when they will pass out into adult working life. The old grammar schools and the new secondary schools, handicapped as they are by being only in part residential or not at all, still make "com-

munity" their care. It is the bias of the blood, and it is to be seen at work in all schools, the primary as well as the secondary, poor men's schools and rich men's schools alike, the large and the small. In respect of "community" some of the provincial universities are behind the schools. How the defect is to be made good is a major problem. Most of the provincial universities originated with medical schools and technological institutes, and for these branches location in populous centers is desirable or necessary. The recent multiplication of universities, done in emulous haste through the ambition of great cities, has been one of the most natural, the most fatally natural of things. If a new start *ab initio* were possible, the smaller and older towns of historical associations, such as Salisbury, Norwich, Litchfield, York, might become seats of universities. However that may be, the war has stirred thought about the siting and conditioning of universities so as to make them in the fullest sense effectual centers of cultural and humane influences. Migration in itself ordinarily stimulates; and war-time dislocations may bear fruit in clearer convictions and fresh inventiveness later on, when decentralization will probably be one of the great cries.

Effects of migration.—Of the effects of migration and mixing I can speak with most freedom and exactitude in the case of my own College. The Exeter University College, which is best described for American readers as a residential liberal arts college with strong arts and science faculties, facilities for graduate work, and a large graduate department of education, "received" from London in September, 1939, the Central School of Speech Training and Dramatic Art, which has now returned to London upon a change in the headship, and a year later received the pre-clinical students of the London School of Medicine for Women (the Royal Free Hospital), both of them vigorous and distinctive groups of staff and students, and neither residential. This diversity within a young and small college, and, let me add, in the

peculiar milieu of a historic cathedral town of moderate size, was salutary for the indigenous group, as I can vouch for, and, as I hope, no less advantageous for the evacuees. The university problem in truth is the world-problem—the practical crux of the One and the Many: how to keep the force of the several parts as full and free as possible, and yet keep the parts in fruitful contact and a measure of unison. The object to be attained is evident, and worthy. But it is not likely to be attained without close planning, and restriction of size; such at least is the teaching of war experience at Exeter. The optimum university would appear to be a university of colleges of controlled scale.

The staff members.—The withdrawal of staff for war service has cost the universities some loss in efficiency, though some gaps have been well filled from the superannuated and from other sources, e.g., refugees of learning. The loss is balanced in general by the reduction in students; and it is least felt where the reduction is smallest, e.g., chemistry, physics, engineering, etc. The favorable reservation age for male university teachers, 33 by the present scale and rising each month by a year, illustrates the government's policy of keeping the universities in being. The individual cases are watched over one by one by the University Grants Committee. The salaries of staff absent on war service are made up, where necessary, to the normal college figure. By the time they return, these teachers may easily have gained more by change of scene and occupation than they will have lost by the breach in specialist work. Some, probably, will prefer not to return. But in all this the commanding feature is the government's determination to use specialists for specialist work, in the Forces or elsewhere, and to avoid repeating in this war the senseless waste of such personnel in the last. The staff who remain in the colleges lead no *umbratilis vita*. They share in the preparatory training of students for all three services, and bear their part extramurally in the Home Guard, A.R.P. services, fire-watching,

etc., as all citizens must. Some groups have made themselves responsible for heavy and exacting duty, by day and by night, in the Royal Observer Corps. In the general shortage of labor the universities have had to part with many of the lower-grade staff, the difficulties of domestic staffing in halls of residence being as acute as any.

The multiplication of war duties, along with war strain, has in some universities at least had one very welcome result—relief from the incubus of committees. My own College, for instance, by using small emergency committees of the Senate and the Council which meet as required has managed its affairs with more ease and dispatch than in the past, just as the City Council of Exeter has committed its affairs to a War Emergency Committee of the mayor, three Council members, and the town clerk, with little or no detriment to efficiency or democracy.

Most universities have been chary of granting advances in salary during the war, except in the lower grades governed by automatic schemes of increment. The suspension of advances has had a happy effect in enabling the novel idea of "family allowances" to make headway. For many years past the London School of Economics has maintained a generous scale of allowances for the dependent children of the staff. Birmingham and Manchester Universities and Exeter and Nottingham University Colleges have now instituted modest schemes, mostly for the period of the war.

Student enrollments.—The demands of the Ministry of Labour and National Service, advancing by degrees, have made heavy inroads on student numbers. The official procedure in recruitment and drafting has been in general considerate and tactful, and the Ministry has usually discussed in advance its proposals affecting students with the Standing Committee of Vice-Chancellors and Principals, an advisory body attached to the Universities Bureau, or with its subcommittees. The university youth

have not had the privileged entry to officer rank which was open to them through the Officer Training Corps in World War I. But they enjoy two advantages: first, a preparatory training is offered in all universities for the Army and in most for the R.A.F. and in some for the Navy, and, second, each university has a Joint Recruiting Board on which college staff along with representatives of the services interview students and graduates, and make comprehensive recommendations on their suitability for the services or for other war work. The broad effect of the regulations until the beginning of 1943, including the discrimination between the categories of students, was that male arts students leaving school at the normal age stay one year at the university while the science students stay two years and three months, which is only nine months short of the usual period for a first degree. Under a new regulation, issued in January, 1943, arts students must join up at the same age as the rest of the population.

The categories in most request for the services and industry are, of course, chemists, physicists, engineers (civil engineers excepted), and radio specialists. Zoologists and botanists find their niche in the national schemes for food production. The limit of two years and a quarter, all too short for the proper formation of scientists, has led the universities to consider countermeasures; Leeds, for instance, is understood to be contemplating the extension of the three terms beyond the normal ten weeks, and Manchester and others prefer to add a fourth in the summer vacation. It is a nice choice of evils. The strongest argument for a change seems to be that amid war-time distractions and anxieties the institution of a term, not necessarily of normal length, in the long summer vacation would probably be a steadying influence. But however willing students might be to respond to new pressure and stimulus, the resort to working against time is not a real cure for the lack of time. Meanwhile a small-scale experi-

ment was made in the summer of 1942 by concentrating groups of radio students in certain colleges for eight-week courses. The teaching staff appear to find the strain at least as severe as do the students.

The women students, who no less than the men are at the disposal of the Ministry of Labour, still flock to the universities, the drain of men to the services making the training of women for certain callings a national necessity. The chief calling in a long list is, of course, teaching; and women are encouraged to take degrees and thereafter their professional trainings. Other callings are, for example, agriculture, dispensing and pharmacy, massage, child care, radiography, social science, and speech therapy. The medical students, lastly, make a special case, the maintenance of the supply of doctors being more than ever a necessity; the only change in the normal course is a reduction of the clinical period by six months.

Attitude of students.—Tendencies, statistics, and regulations throw no light, however, on the war-time spirit and attitude of students. On this matter heads of universities would report uniformly and very favorably. No university, of course, has been without conscientious objectors, a tiny fraction much becried; and with the lapse of time many objectors have changed their minds. Games and athletics have fallen off, and distant matches have ceased. But the temperament of social life among students has lost nothing of its verve. Women students, a little up, if anything, in numbers, and very much up in ratio, have done their full share or more in maintaining the happy momentum of college life. In any and every university, I suppose, there has been an ebb and flow in feeling about the war. The first reaction in Exeter was a novel dismay, and not unnaturally, for at the outbreak of the war almost a fifth of the students came from outside these islands, natives and foreigners living together in the halls of residence in such amity that belligerence shocked them.

Another emergent phase has been the natural bias of young people to blame their elders for the war. But facts have driven home the lesson that the war, more than anything else, is the deliberate initiative of the younger half of Germany. In these years of savagery age is the victim of adolescence. It is a major question whether it is not the motives and methods of adolescence, favored and fomented by unwitting elders and projected into spheres *usually closed to them, that have brought Europe to its present torment.* The rabies of adolescence in German politics has a pale but insidious parallel in art and culture elsewhere. But very few in Britain now put the war down to general conditions, or invoke a vague collective responsibility; Hitler has given them the lie. It is strange, and tragic as well, that it has taken Hitler to disabuse the nation of the facile humanitarian idea that actions are the result of circumstances rather than of choice. If the purge of Hitlerism breeds among those who resist him *a clearer conscience and a sharper conviction of personal responsibility,* that will stand on the credit side in the war balance.

In the third year of war, the students of my own college, if I may judge by them, are as sound an element in the population as any. They bore the three Exeter blitzes with admirable steadiness, and not least the women, whose bravery and address, under showers of incendiaries, saved two halls of residence from the flames. The mere daily round demands fortitude. A lecture starts late, for instance, because the lecturer was one of a bus-queue machine-gunned by a German plane at a near-by coast town at breakfast time; another arrives with a breathless tale of sharp machine-gunning of her commuters' train; another comes very late, his train having been blocked by a bomb-burst on the line, and passengers having been brought on in relays by an improvised bus service. Lengthy night alerts, when Jerry attacks forthwith, or passes over to attack further north, are a feature of south coast life, and bad for study. One lives from day to day, or

rather from night to night. And yet, and yet . . . life manages to be bright. In the College circle of ex-students, young and not so young, the engagement and marriage rates have never, I think, been so high as now. There is the same unblinking toughness in young and old. On the morrow of the great Exeter blitz a Canon's wife in her seventies, her house damaged and in great disorder and discomfort, surveyed her store cupboard. The Canon, at her elbow, and eager for breakfast, pointed to a tin. "No-o-o-o-o! Not that, Douglas," said she, "that's for an emergency!" The following extract from a letter gives a glimpse of the dangers the College ran in that night of fire.

My dear —

I have had a kind letter from Daisy, giving me news of you all, and asking me, "Am I dead of the Raid?" Well, I'm not, nor near: touching wood. And let me be just to Exeter. It has had three raids, 23rd April minimus, 24th April minor, and 3rd May magno intervallo maximus. Of the three I had only the last, having come back from a brief holiday on the morning after the second. I spent the raid itself in the vaulted cellar-shelter of the hotel where I have lived for a year past, a huge high shape in the centre of the town. It hasn't a scratch from any of the raids: luck too good to last. There were some terrible cracks while I sat in the shelter sharing my Bittra chocolate with two old women and one damsel. It was unwise of me: I ought to have given them it all. Chocolate doesn't really suit me, and I was feeling not quite the thing, having had too brief a holiday up in Gloucestershire, where my wife is, and eaten up too many of her sardines and tinned pilchards. It is easy to be wise after the event, but my advice to anybody going in for a raid is, "Take a good holiday before it, and no sardines, and give the women all the chocolate." Besides the cracks there were some terribly savage knocks at Mother Earth. "Time-bombs," "D.A.s," and "unexploded bombs" echoed from the knowing round the cellars. Yes, there are two cellars, the large and the small. The small in times past was the city's "condemned cell," and easily might be again. After hours and hours as it seemed, the "All-clear" went very suddenly: but the women were still munching chocolate. . . .

We climbed up, and I went straight across to the Gandy Street buildings of the College, in a fine old, thick old overcoat, with velvet collar, and glad I was in a few moments that I had it. From lurid gleams and smoke and sparks and roarings I felt as if all Exeter was burning. At that moment I really believed it was. The College was certainly burning. The main building had caught at an extremely awkward corner of the north-light glass roof of the Botany Lab., and the large one-story back wing where we house the Anatomy of the London School of Medicine for Women had caught too. And a tree adjoining the Anatomy, a real living tree, had caught, and was dropping red-hot bits of itself on the Anatomy. I learnt afterwards that when the L.S.M.W. was burnt out in London, and had to come to us, it was the Anatomy that started it all.

A Polish don, the Professor of History, a demented man, and three women medical students, one of them in pyjamas and a coat, having been blitzed out of her lodgings, and lost her all, were struggling with a hose, in which there was no pressure, and a couple of stirrup-pumps in the Anatomy. I wished for a long two-man rake to scrape off the burning wood, for it would have tumbled on the floor, which was two-inches deep in water, a very fine "holding" floor, and the water getting steadily deeper. I have no hesitation in recommending rakes for fire-fighting. As the fire was not gaining very fast, we went up to the roof. There was no pressure there at all. So we arranged a service of buckets from the ground floor to the roof. I filled them from a hydrant, a very wetting job, and the medical women carried them up. Heroines! And I ordered a young don, a rather odd fellow, to go on the roof, and do his best with the buckets. This was a most curious coincidence, though I did not realise it at the time. I suppose I was too wet. Ten days before he had made a will leaving his possessions in trust to his wife and myself,—and quite well-off he was.—for her enjoyment while she lived, and for the College to inherit at her death. And there was I sending him up on a glass roof with heavy buckets of water, but not so heavy quite as they left my hydrant at the bottom of the stair. His wife suddenly appeared from nowhere, and I set her to help the medical women carrying up the buckets. Now, you are a lawyer. What do you think of this coincidence?

Meanwhile the Pole, who seemed to think he was in charge, said that the water had come on again in the big hose we had left in the Anatomy. So it had. The demented man and I started to work it.

They are very heavy and uncomfortable things. The man who holds the front end always says that the man holding behind shakes it, and spoils the aim, and so he does. And then the pressure failed again. There was nothing to be done there. I had a look at the Handicrafts Hut, which for nearly two years has been a . . . and full of machinery on a cement floor. It was blazing and past hope. Have you ever seen machinery, good steel machinery from good machine-tool-makers, blazing? Have you seen cement blazing? Well, I think I have. Everything in that hut was blazing. On the other side of a very narrow lane several houses were blazing, and the one next the Registry, with all our papers and records in it, was blazing worst of all. It seemed necessary to investigate, and the Pole and the medicals and the demented man were doing nothing about it. I tried the door. It was locked. I kicked, and it stood fast. I looked round, and saw three soldiers, who had arrived from nowhere. They soon broke the door in. From outside you'd have said that butter wouldn't melt in the Registry's mouth. We examined four rooms adjoining the fiery furnace, and in each the fire was coming through at the floor line, the party-wall being perforated by the holes for the joists from both sides. We opened the door of a fifth room, and fled before the smoke. The poor old Registry was doomed. I asked myself, "Which of the papers are most worth saving, and where are they?" Unable to answer, I came out, helpless. But the three soldiers laid hands on anything and everything, and particularly on the typewriters, which they saved to the tune of hundreds of pounds.

I went back to the main building. The fire was still gay in the cursed Anatomy, and it was stronger on the roof. The last will and testament up there, happily, had not become operative. The demented man had recovered his senses, and was plunged in despondency. The heroines, wetter and wetter, were still carrying. I felt angry, disgusted and despairing. I went to my room, and looked round at books, prints, furniture, letters, drawerfuls, and so on, all to burn soon, except what I might save. I asked myself what I most wanted to save, and I couldn't answer. You wouldn't guess what I did. I had out my biscuit-box, called in the heroines, and we all ate a ha'penny butter biscuit from the Ballater Bakery, C. J. Anderson, Ballater, Aberdeenshire, and the last of my Bittra, and pulling out a drawer, I pounced on a shiny brand-new shaving-brush, a present last Christmas, and put it in my pocket. Somehow a fire is a drag on the mind.

Those three soldiers, now, not thinkers, would have known what to do.

In the midst of my anger and disgust I heard a cry from a heroine, "The fire-men have come." So they had, with a real hose which you couldn't bend double and break the flow of, and somehow or other they had brought pressure along with them, and they seemed to know how to aim the great nozzle better than the demented man and myself. They soon got the fire under. At 6:40 a.m. after 4 hours of turmoil, I went back to the hotel, full of smoke and dust, and completely wet through, with the fine old coat and the fine new shaving-brush.

The other College properties, rather scattered, but several of them very good targets, had only minor damage—glass, slates, and ceilings. The unexploded bombs, of which we had our share, but all of them duds, were got away without mishap by the Engineers. Heroes! Did I say "minor" damage? If your windows are out, your roof holed, your ceilings down, your doors buckled, gas off, water off, and the only cooking what you can do on an improvised field-kitchen in the open, that is "minor" damage, and it may go on and on.

The College, surprisingly, had only two casualties, girl students now in hospital and going on well.

The Professor of History was our chief loser. When the firemen arrived with hose and pressure, he presently withdrew to see how his rooms had fared. He found the walls standing and the basement one great bowl of fire. His books, notes, mss., all papers and all clothes and personal effects were consumed. Next day the City controls advanced him £15 and 175 clothing coupons to start life afresh! . . .

Army education.—Since early in the war the universities, working through special Regional Committees, have been the centers of the Army education scheme, a beneficent plan whereby lecturers are sent out to address units and groups of the Forces on diverse subjects. Sometimes soldiers are so placed as to be able to attend regular courses thrown open to them in the universities themselves or in technical colleges. But these cases, the exceptions, are in contrast to lonely little groups of A.A. men or search-light units stationed miles from anywhere and committed to a

weary routine of waiting days and vigilant nights. Besides university staff, technologists, teachers, and clergymen, many other persons of special experience or knowledge have been drawn into this work. The Regional Committees have had the advantage of cooperating with the education officers who have been assigned by the Commands to this duty in the various units. Lectures on America are widely and urgently demanded, and the appearance of United States troops in this country may lead to a demand for lectures on Britain. The task of interpreting each nation to the other calls for knowledge and sympathy, and competent interpreters are fewer than could be wished. But the effort, when the way is smoothed, will not be shirked. It will deepen, let us all hope, an understanding that has everything in its favor—descent, history, mental make-up and political outlook, interest, and world hope.

The universities are working out, gropingly and gradually, solutions for the many-sided problem of the foreign student. The numbers of these at the outbreak of the war were already large, and were rising, though the British Government, until very recently, took no such measures as, for example, the French and German Governments had elaborated for encouraging the flow and caring for the incomers. Many foreign students remain in Britain, cut off from their return for the time being, but using their lengthening opportunities to good purpose. A new organization, the British Council, which has Government support, and which the late Lord Lloyd of Dolobran helped powerfully to develop in the years of his headship, plays a beneficent role in bringing carefully selected scholars from all over the world for study and training in Britain, and interests itself, besides, in those who have come to Britain independently. The prestige of the British Council and the expert care its officials devote to the personal needs and problems of foreigners have opened, with the willing cooperation of the universities, new vistas for its

protégés. The aegis of the British Council assures them of recognition and status and social opportunity—in a word, of welcome. In recent vacations, to mention one interesting innovation, the Council has collected mixed parties of foreigners for weeks at a time in residential universities, and provided comprehensive lecture courses on aspects of British life.

The universities hold.—The universities, to sum up, keep their tenor, with minimum changes and an agreeable readiness in change, where change is necessary. They hold, as the British people holds. This College holds, but no more than others. It holds, as Exeter City holds. From the College I look out at desolation on the right, the desolation of a broad expanse, a sort of rough beach of pale leveled brick—ruin made almost seemly. On the left spreads a wide circle of strangely mottled roofs, a spotted disease of war: it is the new slates that replace bomb breakages. New chimney pots for old, and old in new beds of mortar, bomb-sliced houses finished off with new gables of fresh mortar, and ersatz-windows stand out sharp. The Exeter people, who before the blitzes seemed to the passer-by almost unaware of the war, by the same reckoning might now seem to have forgotten their blitzings.

Courage and contrivance will carry us through.

INDIA

BY

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INDIA

PROBLEMS OF HIGHER EDUCATION

Problem of language.—Little more than a century ago it was decided that English should be the medium of instruction for higher education in India. Today, some nationalist leaders, notably Mr. Gandhi, represent this decision as a subtle device to stifle the development of a national consciousness among the people and condemn university education altogether. Yet a century ago the decision was rightly hailed as a first step along the road to unity, and English has indeed proved to be a most powerful unifying influence in the country. Though English continues to be the medium of instruction in Indian universities, with the single exception of the Osmania University in Hyderabad, both the government and the university authorities are making every effort to encourage the development of Indian languages as vehicles of modern thought and the media for the diffusion of western knowledge. There is a consensus of opinion now that at the high school stage the medium of instruction should be the mother tongue of the pupil and that English should be taught as a compulsory second language. The Congress ministries, while in office, made it obligatory on the part of secondary schools, excepting those situated in multilingual areas, to impart instruction in all non-language subjects through the medium of the vernaculars. This is a most desirable reform and there is every reason to believe that secondary education will be all the more efficient for the change. There are great difficulties, however, in the way of replacing English immediately by modern Indian languages at the university stage. It has to be remembered that

the language of public administration in the country is still largely English, that there is no common Indian language which could be used not only for ordinary intercourse but for the communication of scientific knowledge, and that in certain areas several major languages are spoken. Thus, in Madras, there are five important languages—Tamil, Telugu, Kannada, Malayalam, and Urdu. At a recent Conference of Indian Universities, it was resolved that modern Indian languages should be recognized gradually and as far as possible alternatively with English as media of instruction, and that the universities should take steps to encourage the publication of books on modern subjects in these languages. It was felt, however, that instruction and work in all research institutions should be through the medium of English for some time to come. The process of change from English to the Indian medium would be considerably accelerated, of course, if and when the Provinces are regrouped on a linguistic basis. Meanwhile, there are great advantages in continuing the use of English as the medium of instruction in the higher classes. It facilitates a certain measure of cooperation among the universities and the maintenance of uniformity of standards in academic work, and the English language provides the country with a key to the great treasure house of modern knowledge.

THE PUBLIC AND HIGHER EDUCATION

Overproduction and new courses.—Once established, the system of English education which was originally intended to train a comparatively small class to assist in the administration of the country underwent rapid expansion, and as the number of schools increased, larger and larger numbers availed themselves of the opportunity of securing whatever advantage might accrue from academic qualifications. A great many Indian parents still continue to regard a collegiate education merely as a passport to public service. Their one anxiety is that their children should

secure a degree in order to be eligible either for some clerical post or to enter one of the professions. As a consequence, a large number of young men who have neither the taste nor the capacity for academic studies go through the educational mill, and at the end of their university career find that the area of employment in the professions and in government service is strictly limited. Hence the tragedy of educated unemployment in India. There are several thousands of young men with a university education who are unable to find suitable employment, largely because the educational system and the occupational pattern of the country are one-sided. It has therefore been suggested that the problem should be attacked on the university side by the institution of technological and other vocational courses of study.

The Fourth Conference of Indian Universities, held in Bombay four years ago, resolved that in addition to technological courses of the degree and post-graduate standards, universities should institute or recognize by the grant of diploma or certificate technological courses of a predominantly practical character; and in order that the technological courses provided in the universities may enable those who take them successfully to find suitable openings in the economic life of the country, it was desirable that there should be carefully planned schemes of economic development, in the framing of which the university should be intimately associated, and that the universities should establish close contacts with the industrial and commercial organizations in the country. There are great practical difficulties in giving effect to such a resolution. But even if these difficulties were overcome, it may be doubted whether the institution of technological studies alone would entirely solve the problem of unemployment. One danger to which the universities are open in this connection is the adoption of subjects and courses of a too narrowly utilitarian character having little or no cultural value and thereby lowering the standards of their academic awards. Technological training and

research based on a broad foundation of scientific knowledge are necessary for the industrial progress of the country, and universities should undoubtedly make provision for them. But in the impatience to find a solution for unemployment there is the risk of converting the universities into mere polytechnical institutes and of losing sight of the main purposes which universities should fulfill.

Overcrowding and standards.—One adverse effect of the presence in universities of large numbers of students who are not fitted to receive higher education is that it tends to impair the quality of academic work. Colleges and universities are so overcrowded that there is little scope for adequate intellectual and moral training. The education of the average student is measured mainly by success in examinations. Little or no attempt is made to throw him on his own intellectual resources and stimulate his independent thinking. The real solution can only come with the reorganization of the whole school system in such a way that the great majority of the pupils could be diverted at appropriate stages either to occupations or to separate vocational institutions. Along with the extension of vocational and technical education, there is need for the expansion of industry and commerce if the boys who are trained for these callings are to find suitable employment. Doubts have been expressed whether Indian boys are industrially minded at all, and could overcome the habit and tradition of centuries in order to take to technical training.

There is discernible, however, a gradual change of attitude on the part of the Indian public toward training for a craft or an industry. The old superstition that practical studies were not quite respectable and that technical training was a relatively low type of education is beginning to disappear, and Indian boys belonging to the middle classes are taking to technical education in increasing numbers. In view of the phenomenal expansion

which Indian industries are now undergoing owing to the war, technical education is being organized on a wide scale, and many thousands of young men are being trained as mechanics and technicians. There is no doubt that the impetus given by the war to industrial development in India will grow in strength even after the war, and that vocational and technical education will be widely and successfully established in the country.

Need of coordination of effort.—Apart from overcrowding, Indian universities also suffer in the quality of their work by reason of the lack of a reasonable coordination of effort among them. With the introduction of the Montagu-Chelmsford reforms in 1921, Indian education became a provincial transferred subject, and the control over education exercised by the Government of India ceased. The grant of provincial autonomy by the Government of India Act of 1935, while stimulating local patriotism, has unfortunately led to the growth of provincial exclusiveness in educational matters. There is a tendency for each university to multiply its courses of study and to endeavor to become more or less self-sufficient, resulting in a great deal of unnecessary duplication of effort. The problem of coordination is no doubt made difficult by the vast size of the country and the variety of the needs and conditions of the several provinces and states. But in view of the importance of improving university standards, some solution must be found. The best solution would be the establishment by the Central Government in India of an authoritative body like the University Grants Committee of Great Britain. Such a body would be in a position to guide and assist the universities regarding the development of higher teaching and research in a way which would enable them to make their most effective contribution to national well-being and the progress of the country. The spread of literacy in India is bound to lead to a further expansion of university education. It would be all the more necessary, then, to have a central organization to

assist in maintaining the standards of university work and in enabling the universities to undertake such kinds of specialization at the post-graduate stage as would be most beneficial not only to the particular areas in which the universities are located but also to the country as a whole.

RECENT PROGRESS

Reorganization and research.—In spite of the defects in Indian university education, to which a reference has been made, it must be noted that the universities have made great progress within the past quarter of a century. In the early period from 1857 to 1917 the universities were purely examining and degree-conferring bodies modeled on the then University of London. In 1913, however, a resolution was published in the Department of Education of the Government of India, laying down an extensive policy for more and better universities. In 1917 the Calcutta University Commission was appointed under the presidency of Sir Michael Sadler and an exhaustive report issued. The Commission endorsed the policy of the Government of India regarding unitary and residential universities, emphasized the importance of research work being undertaken by university teachers, and recommended the appointment of academic councils with final authority in all purely academic matters.

The effect of the new policy was the creation of a number of new universities of the unitary, teaching, and residential type and the modification of the older universities into both teaching and affiliating universities. Thus of the eighteen universities in India, seventeen are now either wholly teaching and residential universities or universities of the teaching and affiliating type. Of these only two are All-India institutions of a denominational character—the Benares Hindu University and the Aligarh Muslim University. The remaining universities are regional in their character and are largely supported by their respective provincial

or state governments. Several universities have professional courses in law, medicine, engineering, teaching, and agriculture, while almost all are making increased provision for higher work leading to research degrees in particular fields of knowledge. Thus Bombay University has a department of chemical technology providing technological training for those entering industry; Calcutta has post-graduate departments of pure and applied physics and of pure and applied chemistry, which have done notable work; and Madras has research laboratories in botany, bio-chemistry, and zoology. Scientific research has been greatly fostered by the Indian Science Congress formed in 1912, and the visit of a British delegation of distinguished scientists, headed by Sir James Jeans and Sir Arthur Eddington, to Calcutta in 1938 is clear evidence of the recognition which research work in India has received from scientists in Great Britain. Equally good progress has been made in regard to research in arts subjects. The University of Madras, for instance, has research departments in Sanskrit and in all the Dravidian languages, besides a department for the study of Arabic, Persian, and Urdu. The department of Indian history and archaeology is devoting special attention to the study of South Indian history, while the department of economics has undertaken investigations into the peculiar social and economic conditions prevailing in southern India.

The standard of research in Indian universities does not yet bear comparison with that of the work of British and American scholars, largely because of the pressure of routine teaching duties on the staffs and the lack of adequate laboratory and library equipment indispensable for research. It is encouraging to note, however, that research work is being directed more and more toward things which have a direct bearing on the social and economic life of the country. The lack of correlation between school and college curricula and the life of the people has often been

pointed out as one of the most serious defects in the Indian educational system. The knowledge which the student absorbs from books has frequently little or no relation either to his environment or to the practical problems which would confront him in later life. If the work of the universities could be more fully directed to the many problems, human and material, connected with the country, their contribution would be of inestimable value toward promoting the unity and progress of the country.

STUDENT LIFE

Moral training and discipline.—In addition to scholarship and research, a university has to provide facilities for the moral training and discipline of its students. In this regard, the new residential universities are endeavoring by the organization of the social and corporate life of their students to do more for them than the universities of the older types. Even the latter now insist on suitable provision by the colleges for the residence and discipline of students, and there are many institutions, particularly those managed by Christian missions, which have excellent halls of residence for their students. It should also be noted that many of the younger members of faculties, who frequently are men with British and other foreign degrees, now live and work in close association with the students and are able to exert a great influence for good upon the ideals and conduct of their wards. Corporate life is stimulated by various university associations for social, literary, and athletic purposes and there is generally great friendliness and cordiality among the students belonging to different communal groups. The character and outlook of India's youth today may be judged from the fact that 18,000 of them applied for enrollment in response to an appeal for 350 recruits for the Indian Air Force at the beginning of the war, and that the junior officers of the new Indian Army of 2,000,000 are largely recruited from university men.

HIGHER EDUCATION AND PUBLIC NEEDS

Extramural departments.—Indian universities have also begun to establish extramural departments and to organize extension lectures on a fairly wide scale. There is throughout the country a growing social sensitiveness to the conditions and needs of the under-privileged and down-trodden classes and a general desire to promote popular education in all its aspects. Social service leagues have been formed in colleges and universities, and students are undertaking welfare work in slums and villages. The wider aspects of education are thus receiving due attention, and university life is becoming fuller and richer than it was even a few years ago.

Though great progress has been made in recent years by Indian universities in their endeavor to train and equip the future leaders of the country, much yet remains to be done if universities are to play their full part in national life. There is need first of all, if universities are to do their work worthily, that there should be greater public interest in and support for educational reconstruction and progress than exist at present in the country. One striking evidence of this is the absence in India, with a few notable exceptions, of large private endowments to educational institutions. As a consequence, universities have to carry on their work with slender financial resources, and have been prevented from embarking on projects of real benefit to their students.

The universities and modern life.—So far as educated unemployment is concerned, the problem cannot be solved entirely either by a system of selection from among those seeking admission to university courses or even by a reorganization of secondary school education along the lines indicated earlier. What is needed is that university education should be brought more into line with the actual needs of modern life by the inclusion of a variety of intellectual activities. Indian universities, even more than

those of other countries, have a tendency to remain too cloistered and academic, isolated from the main currents of life flowing round them. While not discarding traditional studies, there is need for the universities—without sacrificing the intellectual basis of the training they provide—to bring themselves into conformity with the conditions and needs of a rapidly changing country. The present period in which India is moving toward greater political freedom brings a new opportunity for integrating university activities with national life. There are the great problems of liquidating adult illiteracy in the country, of raising the standards of life of the Indian masses, and of developing the vast material resources of the land. Indian universities could make a most important contribution toward the solution of these problems.

Higher education and leadership.—Above all, Indian universities, in the peculiar circumstances of the country, have to keep steadily in view the great social objectives of education and should, through their studies and organizations, prepare the students for leadership, democracy, and progress. Communal separatism is one of the greatest hindrances in India today to national unity and the progress of self-government. Indian young men and women have to be trained in a manner which will enable them to carry into public life the spirit of tolerance, good will, and cooperation, and the sense of a larger fellowship which transcends communal and even national limitations.

Whatever English education may not have done for India, it has firmly implanted among its people a love of freedom and of British democratic institutions. But democracy is more than a mere system of government. It is essentially a way of life inspired by the great ideals of justice and brotherhood. If democratic institutions are to be permanently successful in India, considerable readjustments in regard to its social and religious thought and practice will be necessary. Only when the educa-

tional system succeeds in creating among the youth of the country changed attitudes, wider outlook, and constructive social purposes, and equips them with the knowledge and ability to carry these out, will it be making its fullest contribution to national well-being and progress.

IRELAND

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IRELAND

HISTORICAL DEVELOPMENT

For a complete understanding of the position of the universities of Ireland, where educational development has been continually deflected by the acerbities of national, religious, and political differences, it will be necessary to preface the description of their constitution and their relations to the community with a short history of their origins and the circumstances to which they owe their existence.

Trinity College, Dublin.—The oldest of the Irish universities is the University of Dublin whose only college is Trinity College, Dublin. Founded by Queen Elizabeth in 1591 it was originally intended to include several colleges (though in the end none but that in Dublin was built), its purpose being to assist in the Anglicization and the religious reformation of Ireland, not yet completely conquered and still a Catholic country. All positions of honor, trust, or emolument in the University were confined to members of the Protestant Church as by law established; there was a chapel in which the Protestant service was celebrated and the teaching of Divinity, which held an important place, was directed toward establishing the tenets of the reformed religion. For more than two centuries it remained the only Irish university, a formidable bulwark of Anglo-Irish civilization, the Alma Mater of many brilliant sons, Archbishop Ussher, Dean Swift, Bishop Berkeley, Oliver Goldsmith, Edmund Burke, Henry Grattan (to name only a few out of many), becoming more and more essentially Irish as the years passed by. But its constitution and the limitations imposed upon it by its founder remained un-

altered; it was a Protestant university in a country the majority of whose inhabitants were Catholics deprived of its advantages, and without any alternative provision for their needs.

St. Patrick's College.—The claims of the majority could not be ignored indefinitely. By 1783 the Irish Parliament, still exclusively Protestant, had secured its independence of the overriding authority of the English Legislature; the influences which culminated in the French Revolution had not left Ireland untouched, and in 1798 St. Patrick's College for the higher education of Irish Catholics was established and endowed in Maynooth, not far from Dublin. At first intended to provide for the educational needs of the Catholic laity as well as for the training of a Catholic clergy, the College gradually became (as it still remains) an entirely ecclesiastical seminary in which increasing numbers of aspirants to the priesthood obtained the training which until its foundation they had been obliged to seek in France, Italy, or Spain. St. Patrick's College could not thus meet the demand for the higher education of Irish Catholics, a small number of whom, it is true, such as the poet, Thomas Moore, swallowing as best they could their pride and their principles, crept through the portals of Trinity College.

Protestant dissenters and higher education.—But the Irish Catholic was not the only (though the largest) class of the community to be deprived of the full advantages of a university. The Protestant dissenters of the North of Ireland were no more eligible than their Catholic fellow countrymen to reap the full advantage of the training provided for members of the Established Church; they, too, were excluded from all posts of dignity or profit in the only university of their country.

The Irish Parliament by the Act of Union in 1801 ceased to exist, and any relief must after that be sought from the English Parliament. In 1845 the English Government decided to remedy these grievances and Sir James Graham, the Home Secretary,

introduced a bill for the creation of three new colleges to be known as the Queen's Colleges, at Belfast, Cork, and Galway respectively. Built and endowed by the State and adequately provided with scholarships, they were to be open to students without distinction of creed; no tests, either political or religious, were to be enforced; there was to be no religious teaching provided; and the presidents, professors, and other officers were to be appointed by the Crown. It was hoped that in each of these Colleges students of all classes and creeds would receive an education as good as that provided in Trinity College, and without those restrictions which had closed that famous seat of learning to so many young Irishmen. The bill was widely welcomed; it received the support of the Catholic Primate and his fellow archbishop of Dublin; of Sir Thomas Wyse, who had pressed the claims of Irish Catholics and Protestant Dissenters upon the English Government, and of Thomas Davis and John Mitchel, the influential leaders of the Young Ireland movement.

A majority of the Catholic hierarchy, however, found the proposals unsatisfactory, particularly in respect of the lack of any provision in the new colleges for the official recognition of religious instruction as part of the curriculum. They procured from Rome a rescript condemning attendance at such colleges as dangerous to the faith and morals of Irish Catholics, and the "Godless Colleges," as they were called, were forbidden to the faithful. Undeterred, the Government proceeded with its proposal. The colleges were built and professors appointed. It was hoped eventually to weaken the opposition by a kind of tacit agreement that the presidents of the colleges at Cork and Galway should be Catholics and of that at Belfast a Presbyterian minister; but the Catholic hierarchy remained unmoved and the Catholic who attended these colleges or who accepted office in them did so under the official disapproval of his Church. In spite of this a number of Catholics were found both to accept posts

and to enter the colleges as students; but on the whole the success of the two colleges which might have been expected to attract the largest number of Catholic students was never very great. It became less and less necessary to consult Catholic sentiment in the choice of professors; Protestant students from the North of Ireland who found the competition too keen in Belfast resorted to Galway where scholarships could be obtained upon less exacting terms, and the college at Cork became largely dependent upon Protestant students from the South of Ireland who could not for various reasons go to Trinity College.

The only one of the three colleges that was a success was that situated in Belfast. Opened in 1847 it attracted from the first a large number of students, and its initial success suffered no diminution as time went on. Though the Presbyterian Church, the largest single dissenting body in Ireland, would gladly have secured for itself the same position in the Queen's College at Belfast as the Established Church occupied in Trinity College, Dublin, both official policy and the public feeling in Northern Ireland were against it, and the non-denominational character of the College was consistently upheld.

In 1850 the Queen's University of Ireland, of which the three Queen's Colleges were constituent colleges, was founded with the right of awarding and conferring degrees in all faculties except theology. It was governed by a Senate nominated by the Government, which on the recommendations of the several colleges decided upon the curricula for the various examinations, appointed examiners, and conferred the degrees. The Senate had its offices and meeting place in Dublin; but each of the colleges continued to enjoy a considerable degree of individual freedom, under the control of the President and a Council elected by the body of the Professors.

Catholic University of Ireland.—Five years later the Irish Catholic Bishops made an attempt to establish out of their own

resources a university foundation in which they could exercise the same, or an even greater, authority than the Established Church was supposed to exercise in Trinity College. This was the Catholic University of Ireland, and the first Rector was no less a personage than Dr. J. H. Newman, who came to Dublin to direct its development. But the new University had no power to grant degrees; the English Rector (for all his great gifts) was unable to make headway against the many personal and official difficulties which lay in his path, and the most conspicuous, if not the only, claim which the Catholic University of Ireland has to remembrance is that it furnished Dr. Newman with the occasion to write his famous book, *The Office and Work of Universities*.

Abolition of religious preference.—In the year 1873 the last vestige of religious preference was abolished in Trinity College, Dublin, and all positions of profit or trust in the University were thrown open without distinction of creed. But although since that time Catholics could be (and were) elected as scholars and fellows of the College, the old antagonisms remained, and neither the University of Dublin, which Catholics could now enter upon the same terms as anyone else, nor the Queen's University of Ireland was regarded as satisfying the requirements of the Catholic majority, or even as places to which Catholics could resort without danger to their faith and morals. Upon this attitude argument and appeal alike were exercised in vain. Individual Catholics might (and did) avail themselves of the advantages of both Universities and accepted office in them, but on the whole both continued to be regarded in their different degrees as not merely unacceptable to the majority but as dangerous to their ancestral faith.

Royal University of Ireland.—It was finally decided in 1879 again to recast the entire system. Trinity College was allowed to remain; its venerable history and its great reputation secured it from disturbance; but the Queen's University of Ireland was

marked for destruction. It was abolished, though the three colleges were still maintained as autonomous bodies; the State continued to endow them as before, appointing and paying presidents and professors and maintaining their buildings at the public expense.

In place of the Queen's University came the Royal University of Ireland, whose university functions were confined to examining and conferring degrees upon such students as passed its various examinations; no attendance was required upon any course of instruction in any recognized institution; the student who had gained his knowledge from private teachers or his own unaided exertions was equally eligible for any distinction the University had to offer with the student who attended the instruction of a professor in a college.

Into this wide framework was introduced some attempt to coordinate the existing colleges of university rank outside Trinity College. Of these there were in addition to the three Queen's Colleges two not hitherto mentioned. The teaching work of the old Catholic University of Ireland had gradually fallen into the hands of the Jesuit Order and their college, situated in Dublin, had for many years provided education of a university standard. In addition there had been founded in Derry a college for the education of Presbyterians, known as Magee College, which provided not merely the training in Divinity required of students for the Presbyterian ministry, but a certain amount of training in other subjects. This college was under the control of the General Assembly of the Presbyterian Church, which kept in its own hands the appointment of the professors. These five colleges, so divergent in character, ideals, and attachments, were brought together into the new University. The University was managed by a Senate, representative, so far as that was possible, of Irish educational interests, and nominated by the Irish government; of this Senate the heads of these five colleges were always

members. The fellowships of the new University were distributed among the professors of these colleges, and they in conjunction with the examiners, also appointed mainly from among the professors of the same colleges, conducted the examinations and prescribed the curricula under the supreme control of the Senate.

The new University began to function in 1882. It satisfied nobody. The Queen's Colleges remained as they had been before, institutions founded by the State, maintained by the State upon the principle that education and religion could be (and indeed ought to be) divorced, the very principle which the authorities and spokesmen of the Catholic community repudiated *ab initio*. The same recognition was, it is true, accorded to two colleges founded upon the opposite principle, one Catholic and the other Presbyterian, but this it was claimed was no adequate recognition of the rights of the majority to a university conducted in accordance with their principles. The only tangible advantage, in addition to the recognition of the Jesuit College in Dublin, which the Catholic majority gained was that students trained in unrecognized Catholic colleges and seminaries could present themselves for examination and be awarded degrees on the same conditions as students from the five semi-official colleges.

EDUCATION AND POLITICS

Reform of 1908.—Such was the situation which faced the English Government when in 1908 it undertook yet again to recast the Irish university system. The solution then adopted is still in force, and to understand both the difficulties that had to be surmounted and the reason for many details of their solution it is necessary to bear in mind not only the history of Irish university education summarized in the preceding pages but the critical political questions relating to Ireland by which the Government then in power found itself confronted.

The Liberal administration had already committed itself to the policy of "Home Rule" for Ireland. To carry this policy through was, as they were well aware, a formidable task; how formidable it would prove, by what violence both in England and in Ireland it was to be met, how it was to be complicated by international affairs, neither they nor anyone else then dreamed. They decided to begin with what seemed the less formidable task of settling the Irish university question; should this be successfully accomplished, it might have seemed that they would enter upon the more formidable task with greater good will and with an enhanced reputation for statesmanship and wisdom. At any rate, they chose this alternative to what might have seemed the easier course of leaving the problem to the new Irish Parliament to which they hoped soon to hand over the internal affairs of the country.

The government had to steer its course between Scylla and Charybdis. On the one hand it was met by the expectation that at last a Catholic University would be established; on the other hand it must have regard for the views of its political opponents, the Irish Protestants, particularly in the North of Ireland, the great majority of whom were politically opposed to the Government, whose political hostility it was essential (in view of the immediate future) to mitigate and who were unalterably opposed to the establishment of a university under the control of the Catholic Church. This hostility not even the offer of a university under their own control would in the least mitigate.

The solution of the problem which was eventually adopted and passed into law was perhaps the best which history and circumstances permitted. The University of Dublin was left untouched and retained its ancient constitution. The Royal University of Ireland was abolished and its place supplied by two new universities, the National University of Ireland and the Queen's University of Belfast. To the former were assigned as

constituent colleges the Jesuit College in Dublin, the Queen's College, Cork, and the Queen's College, Galway; to each of these colleges a new form of government was given. The rights of the existing professors in Cork and Galway who had been appointed by the Crown were preserved, but for the title of Queen's College was substituted that of University College, the Jesuit College was dissolved and refounded as University College, Dublin; the new professors were to be nominated by a University Commission of independent judgment who might reappoint, if they thought fit, the existing professors in University College, Dublin. The University and the constituent colleges were assigned annual endowments payable out of public funds, sufficient not only to continue but to enlarge their teaching; and to University College, Dublin, were handed over the buildings, considerably improved and enlarged, which had been used by the Royal University of Ireland. The latter, the Queen's University of Belfast, had only one constituent college, the old Queen's College which retained its name; it received an annual endowment and a sum sufficient to enlarge its buildings considerably; the existing professors were retained and a considerable number of new professors and lecturers appointed.

Both universities were to be autonomous and governed by a Senate, the constitution of which was settled by the University Commission in charge of each, the first Senate being nominated to hold office for a fixed period, all subsequent senates to be elected by the various interests (including the professors and the graduates) which it was thought desirable should have representation upon it. One restriction was shared in common by the two universities: no religious tests were permitted as the condition of entering or holding office in the university, and no money provided by public funds should be expended upon any religious or dogmatic teaching, though each university was free to appoint (or to accept the nomination of) professors whose

salary was provided by private donation, such professors not being entitled to be called professors of the University or to have any voice in its government.

The constitution of the National University was accepted without protest or disturbance, but that of the Queen's University became the subject of acrimonious legal controversy. The Commission entrusted with the drafting of the first statutes, anxious to make it possible for Catholics to have the same facilities as Protestants, provided, in addition to the chair of logic and metaphysics and the lectureship in moral philosophy and the history of philosophy, a lectureship in scholastic philosophy without which Catholics would have been debarred altogether from the study of philosophy. It was held by the majority of the Protestants in the North of Ireland that such a concession to Catholic feeling was objectionable; they declared it to be illegal, and a public subscription widely supported was set on foot to defray the expenses of an appeal to the Judicial Committee of the Irish Privy Council. The appeal failed, but the feeling which gave rise to it did not cease to make itself felt for many years to the detriment of the University.

PRESENT ORGANIZATION OF HIGHER EDUCATION

Trinity College, Dublin.—Trinity College, Dublin, which is, in effect, Dublin University, is governed by a Board consisting of (*a*) the Provost who is appointed by the Government, after considering the recommendation of the College, (*b*) the seven Senior Fellows, (*c*) such Fellows as may hold the offices of Bursar, Senior Lecturer, or Registrar, (*d*) two representatives of the Junior Fellows, and (*e*) two professors. The Fellows are elected by the Board either from among the distinguished graduates of the University or from outside, in both cases after an exacting expert scrutiny of their qualifications. Associated with the Board are (*a*) the Senate, consisting of such Doctors and Masters as

comply with regulations made by the Board, whose consent is required for the conferring of all degrees; (*b*) the Council, a small body representative of various academic interests, elected by the Senate which, subject to the concurrence of the Board, elects to all professorships, other than those in the Divinity School or for which other methods of election are prescribed by the Founders, and which is associated with the Board in matters relating to academic courses, teaching, and regulations. The teaching is in the hands of the Fellows, who alone were at first entrusted with this duty, the professors, and the lecturers, of whom there are a large number. Certain Fellows are appointed by the Board to act as tutors, to one of whom each student on entry must attach himself for general guidance and help during his course.

Discipline is in the hands, subject to the Provost in the Board, of two proctors. Students must either reside in the College, where a very large number of rooms are available, or with their parents or guardians or, failing these, in rooms registered by the College authorities. Students in residence dine in Hall and must be in College each night at a certain hour. Members of the Church of Ireland are required to attend service in the College Chapel; members of the Presbyterian Church in some church of their denomination in Dublin. Since 1904 women have been admitted to the College under certain restrictions; they cannot become Fellows or hold foundation scholarships; they must not be in College after 6:00 p.m., and are restricted to certain parts of the building; they are not eligible for prizes in the Divinity School; and they must reside either in Trinity Hall at some distance from the College or with their parents or guardians.

The College provides a complete university curriculum. There are Faculties of Arts and Science in all their branches, a school of physics, providing training in medicine, surgery, midwifery, dentistry, and allied subjects; a school of engineering, civil, elec-

trical, and mechanical; a school of law (in which the King's Inns are associated with the Board); a faculty of commerce; a faculty of agriculture; a school of divinity, in which most of the clergy of the Church of Ireland pursue their theological studies; a department of education; and a faculty of music. There are also schools of social science and public administration.

As a general rule students who wish to obtain a degree in any of the specialized schools, divinity, medicine, law, engineering, etc., must first have graduated in the faculty of arts. By this wise provision Trinity College alone among the Irish Universities secures for the members of its subordinate schools a true university education as distinct from a purely professional training.

Trinity College is distinguished by its purely academic government; its academic policy is not liable to be deflected from purely academic considerations by the inclusion in its governing body of representatives of non-academic interests or of public bodies. Its relation to the community is determined not by outside pressure but by its own sense of its duty toward the community and by acting upon it.

After the passing of the Irish Universities Act in 1908, the Presbyterian College in Derry, Magee College, found itself without any university standing. It applied to Trinity College for some kind of affiliation, which was granted by the recognition of attendance upon lectures in Derry as equivalent to attendance at Trinity, provided that students of Magee College should have, before being finally admitted to the degree, a certain period of attendance in Dublin. The professors and lecturers in the arts subjects in Magee are no longer appointed by the General Assembly of the Presbyterian Church but by the Trustees of the College, and its theological faculty has been incorporated with that of the Assembly's theological college in Belfast.

The National University of Ireland.—The National University

of Ireland has a somewhat complicated constitution, based upon the view that a university, being an organism of the body politic, and being as such entitled to its support, must in consequence admit representatives of the public to a share in its government and in the shaping of its educational policy and aims. This view in the case of the National University of Ireland secures incidentally an object which it would have been less easy under the circumstances to secure more directly. The National University was designed to satisfy the long debated and just claim of the Catholic majority for a university to which they could freely resort. It is true that Trinity College was now open to them on the same terms as other students, but to wait upon the slow process which time and the influx of Catholic students in large numbers might one day bring about was more than could be expected of a people anxious for an immediate answer to its desire. Only a limited number of Catholics at the most could afford the expense of attending it. To alter its constitution so radically as to produce the expected result within a reasonable length of time was more than any government would venture to attempt. On the other hand no English government in 1908 could found a university in which a preference should be given to students of any particular religion; nor indeed was such the Catholic claim in Ireland. The National University by its constitution became almost at once, without any express provision to that effect, a predominantly Catholic University.

Each of the three constituent colleges, Dublin, Cork, and Galway, has its own governing body and its own Academic Council. The governing body is composed partly of representatives of the academic body and the graduates, partly of representatives of public bodies and interests. The Academic Council has under its control, subject to the approval of the governing body, the internal academic affairs of the college; finance and the broader aspects of academic policy and development are under the con-

trol of the governing body. Each of the colleges is not only independent of the other but distinctive; for instance, Galway, being in the center of the Irish-speaking districts, conducts a considerable amount of its teaching through the medium of the Irish language; Dublin, on the other hand, has developed an admirable school of higher Gaelic studies, and possesses a faculty entirely devoted to Irish learning. The faculty of agriculture in Dublin and Galway deals with general agriculture, while in Cork it specializes in dairy science. No attempt is made to enforce uniformity between the Colleges in any part of the curriculum, so that each college is free to adapt its teaching to local needs in conformity with local standards. And that this diversity may not lead in any case to the lowering of the general standard and value of the teaching it is the business of the external examiners to ensure.

Over these three colleges presides the Governing Body of the University as such, with its attendant General Board of Studies. To the former is assigned the final determination of all questions of general University policy. It appoints the professors in all three colleges, with due regard to any submission which each college may make with regard to its own particular posts. It approves, after taking the opinion of the General Board of Studies, the curricula and programs submitted by each of the colleges for its own studies. It appoints external examiners who are associated in each college in turn with the local teachers in examining the students, and it confers the degrees upon the students whom the colleges propose. The office of Chancellor is filled by the choice of Convocation, and the heads of the various colleges in turn perform the duties of Vice-Chancellor. This governing body is appointed upon the same principles as the governing bodies of the constituent colleges, and like them, represents not merely the academic body but various public bodies and interests.

Such a university in a Catholic country must naturally be predominantly Catholic, but this is an accident and not of the essence of its constitution. While there are a number of Protestant professors and lecturers the majority are naturally Catholic and this majority shows a tendency to increase. The only philosophy taught in the University is Thomistic, and the professors of philosophy are with only one exception in Catholic orders. The first professorship to be endowed by gift to the University was the professorship of Catholic Theology endowed by the Cardinal Primate, now replaced by the three professorships of Catholic Moral Theology, Catholic Dogmatic Theology, and Catholic Biblical Theology, founded by the four Catholic Archbishops on behalf of the Catholic hierarchy. St. Patrick's College, Maynooth, has been affiliated to the University; its professors and lecturers, appointed by the Catholic hierarchy, and the courses of study are recognized as qualifying their students for degrees of the University.

The University has faculties of arts, science, law, medicine, Celtic studies, engineering, commerce, and agriculture. There are departments of education in each college, and the University confers a diploma in social science and has a school of library training. The teaching of sociology is in Dublin assigned to the department of philosophy, while in Cork there is a separate lecturer.

Thus the National University fully meets not only the feelings which it was intended to satisfy but the claim which the country may justly make upon it to provide a broad and adequate intellectual training for its younger citizens.

Queen's University, Belfast.—The general constitution of the Queen's University of Belfast is the same as that of the National University of Ireland. The governing body is the Senate, composed of representatives of the academic body and the graduates, as well as of representatives of many public bodies and interests,

of certain members "appointed by His Majesty," and of co-opted members. The Senate decides all questions of general University policy, manages the finances, appoints professors and lecturers and considers all proposals of the academic body with regard to internal university matters, such as curricula, courses, and lectures. The Chancellor is chosen by Convocation and the President, elected by the Senate, acts as Vice-Chancellor.

The University has faculties of arts, science, applied science, law, medicine, commerce, agriculture, and theology; there are also an engineering school and a department of education. The teaching in arts, science, law, medicine, and agriculture is given in the University; by an arrangement with the Belfast Municipal College of Technology the teaching in applied sciences and commerce is shared between it and the University by a division of functions in the former case, teaching in civil engineering being provided by the University, that in electrical and mechanical engineering being provided by the Municipal College, and in the latter case by a duplication of function, the teaching being provided both in the University and in the College. The teachers of the Municipal College are appointed by a Committee of the Belfast City Council, with the proviso that if a person imperfectly qualified to give teaching of a university standard should be appointed the University may refuse recognition to him and the courses conducted by him. Qualified teachers of the College become in certain subjects "recognized teachers" of the University and in certain cases extramural professors.

In the faculty of theology the teaching is given by "recognized teachers" in the Assembly's College, the official Theological College of the Irish Presbyterian Church. In this the appointments are in the hands of the Presbyterian General Assembly, and, as in the case of the College of Technology, the appointment of unsuitable persons may be followed by a refusal of the University to recognize them and the courses they conduct.

In the case of the faculty of agriculture, the cost of the buildings, which are in the University grounds, and their upkeep, as well as the salaries of the staff, are a charge upon the Ministry of Agriculture of the Government of Northern Ireland. The professors and lecturers are all civil servants in the Ministry which nominates them to the University for its approval.

The department of education is in a somewhat complicated position. It confers a diploma and a higher diploma in education, and these may be taken by either primary or secondary teachers. But the control of both divisions of education in Northern Ireland is entirely in the hands of the Ministry of Education and its officials. In the case of secondary teachers, while their salary may be affected by their record of university honors, they are not required to hold a diploma in education. In the case of primary teachers their sole qualification is given in a training college, under the control of the Ministry and without any connection with the University other than that two years of attendance in the training college is recognized by the University as equivalent to one year's attendance at the University upon the courses for the first year in the faculty of arts. Very few students of the training college avail themselves of this provision in order to proceed to a degree.

The University also conducts courses of social science, which are not very much in demand, and it is alone among the Universities of Ireland in the attention which it gives to adult education. This is managed by a Joint Committee of the University and of the Workers Educational Association which co-opts representatives of the Ministry of Education and of the various county councils which, like the Ministry, make grants in aid of its work. The University appoints and pays out of its own funds a director and organizer of this work, who is given the status, and is of the rank, of a university lecturer. Classes and regular courses of study are conducted under the scheme not only in

Belfast but in many urban and rural districts in Northern Ireland.

The University and all its posts are open upon equal terms to men and women; there are no religious tests; and thanks to the wisdom of the University Commission in providing teaching in scholastic philosophy very many Catholic students are in attendance, even the students from the diocese who intend to proceed to the priesthood receiving their arts training in the University.

The University is in receipt of an annual grant from public funds which forms the chief part of its income; part of this sum was granted by the English Government in 1908 and, when the subordinate Parliament of Northern Ireland was established, became a fixed charge upon the revenue of that Parliament; the other and nearly equal portion was added by the Northern Parliament. Besides, the old Queen's College, during the sixty years of its existence prior to its conversion into the Queen's University, received many valuable endowments which the University now enjoys, not to speak of the gifts which have accrued to it since.

The University, like the National University, is non-residential and no restrictions are imposed upon the student's choice of a residence. For men students, however, a small residence has been established by the University under the care of a warden in the hope that it may be possible to extend it in the future, while for women, the private generosity of two Belfast ladies established a hall of residence, called after them The Riddel Hall, capable of receiving about sixty students.

CONCLUSION

The influence of politics and religious differences.—It will be clear from the foregoing how the development of university education in Ireland has been complicated from the start by

considerations of politics and of religious differences, and that these difficulties have only gradually and partially been overcome. In a land of long memories Trinity College, although now open to students of all religious beliefs, has in popular estimation not entirely shaken itself free from the associations of an earlier time; and the National University is still to a large extent regarded as being not a university for the youth of the nation but one for the Catholic portion of it. These misconceptions only time can remove, and time is doing its work. When Eire secured Dominion Status its successive governments adopted a statesmanlike attitude in regard to both. Trinity College was left in the full enjoyment of its ancient position; it was accorded the same representation in the new Parliament as was given to the National University. It has its own inherited revenues, while the National University derives its income largely from public funds; but this difference has not led to the one being regarded as the "official" University, while the other is looked upon as in any sense standing aside from the general life of the nation. Historical facts have been frankly recognized and official policy shaped to fit them. The two Universities are in friendly and healthy rivalry. Professors of Trinity frequently act as external examiners in the National University, and, while it is impossible for Trinity, owing to its constitution, to reciprocate fully in this respect, it reciprocates in other ways. Each university is in its own way fully conscious of its duty to the community and does its utmost to meet changing needs and altered claims, Trinity College being guided in this path by the voluntary good sense and consciousness of duty possessed by its Board, the National University having the added stimulus of the representation of public interests upon its Governing Body.

The Queen's University of Belfast, with a constitution resembling that of the National University of Ireland, and being (like it) supported largely out of public funds, differs from it in being

the only university in that part of Ireland still politically subject to Great Britain. Magee College, which geographically might have been expected to be attached to the University, is affiliated to Trinity College, Dublin, and so belongs to the educational system, not of Northern Ireland, but of Eire. And many students from Northern Ireland prefer to obtain the degrees of the ancient University of Dublin to those of the comparatively new university in Belfast. But for all practical purposes it is the official university of Northern Ireland; it returns four members to the Northern Parliament and one member to the English Parliament. And like the other universities of Ireland it has not altogether escaped the effects of its history. Although as much open to all members of the community as either of the others, it is still regarded as a Protestant university. It lies more open to political interference than either of the others, partly on account of the greater acerbity of the relations between political and religious parties in Northern Ireland than in Eire, partly on account of the more intimate way in which it has become connected with Government Departments and with outside institutions which have been given an influence upon its policy which the University does not possess over theirs. And it lies open, as does the National University (and indeed all "modern" universities) to local and non-academic influences in the shaping of academic policy. All this time will, no doubt, correct, as administrations and communities alike not merely exert pressure upon the universities but receive from them in return a loftier idea of the intellectual functions of a university and the lessons of reason and moderation which it can impart.

NEW ZEALAND

BY

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NEW ZEALAND

THE UNIVERSITY AND NATIONAL LIFE

Education for status.—At every level of education, primary, post-primary, and higher, New Zealand has followed an extensive rather than an intensive policy. When it has come to an issue between quantity and quality the former has nearly always won. The main drive behind educational expansion has been ambition for status—if that is not too harsh a phrase for what has sometimes been no more than a desire for a modest degree of economic security in a society subject to slumps and unemployment. The motive has not appeared suddenly in human history—witness Scotland's educational past—and it operates strongly in other countries. But in New Zealand it has had unusual scope for expression. The section of the population seeking easy access to education has been powerful politically, and the wealth of the country (which, according to Colin Clarke, enjoys the highest standard of material living in the world) has permitted the expansion demanded without necessitating any great sacrifice of other things.

In the field of higher education particularly, social pressures in the direction of an extensive policy have been reinforced by the facts of geography and by provincial jealousies. Unlike each of the Australian States, New Zealand possesses no single, dominating urban center. Her four main cities, each of which, in its time, has seen itself as the political or cultural metropolis and bridled at the presumptuous claim of its rivals, are strung out roughly equidistant from one another down the greater part of the ribbon-shaped length of her two principal islands. Not

infrequently this situation has led, after undignified wrangles, to the dispersion of educational facilities that on grounds of economy, to say nothing of educational effectiveness, should have been concentrated at one point.

Provision and organization of higher education.—These facts help to explain how it is that New Zealand, with a population of only a million and a half, has six institutions of university rank—university colleges at Auckland, Wellington, Christchurch, and Dunedin, and agricultural colleges near Palmerston North in the North Island and at Lincoln in the South. All four of the university colleges provide courses in arts, science, law, and commerce, and all but one in music. Auckland University College has schools of architecture and engineering, and in addition gives special consideration to commerce; Victoria University College (Wellington) gives special consideration to law, and has a recently established school of political science and public administration;¹ Canterbury University College has a school of engineering; and the University of Otago (there are historical reasons for the retention of this title) has schools of medicine, dentistry, mining and metallurgical engineering, and home science.

The fruits of the extensive policy are seen not only in the number of institutions and special schools but also in the size of the student body. As early as 1885, less than half a century after the organized colonization of the country, it could be proudly claimed that New Zealand had in relation to her population as many students receiving university education as any other country in the world; and, in the period just before the present war, she had in proportion to her white population three times as many university students as England, twice as many as Australia, and half as many again as Scotland, being

¹ The course in public administration has had to be suspended on account of the war.

surpassed only by the United States and South Africa. Easy access to university studies has been made possible by supplying bursaries giving free tuition; by providing lectures, especially in subjects for arts, law, and commerce degrees, before or after working hours; by permitting extramural studies; and by granting provisional matriculation to any applicant over twenty-one years of age. In 1939 two-fifths of the students attending lectures were receiving free education, half the men and more than three-fifths of the women were part-time students, and a tenth of all students were extramural. There is, of course, an entrance examination but it has never been sufficiently exacting to shut out very many who really desired to undertake a university course.

The outlook of students and standards.—Up to a point the policy that has been pursued can be defended on grounds both of social justice and of social needs. Ability has not been denied its opportunity, and the great majority of graduates have found posts giving scope to their special training. On the other hand, New Zealand faces in a rather acute form the problems arising from the presence in the university of a large proportion of students whose motives are urgently vocational, whose talents are modest, and who have little leisure for browsing and social intercourse—a situation that threatens low standards of scholarship and a narrowing of the educative process to intensive cramming for a professional ticket. In actual fact these dangers have not been avoided. The Royal Commission of 1925, echoing the complaints of local reformers for a generation before, reported, with perhaps too polite an irony, that “the New Zealand University offers unrivalled facilities for gaining university degrees, but is less successful in providing university education.”

The root cause of the failure is to be found in the materialist and individualist quality of the very motive that led to the rapid expansion of higher education. Lewis Mumford's generalization that “the university has become for the modern city what the

Cathedral was for the dominantly religious culture of the Middle Ages" has a certain applicability everywhere. But if it implies that the university is widely regarded as a symbol and repository of spiritual values and calls forth from the ordinary citizen something of the same devotion that went into the building and maintenance of the medieval cathedral, then it cannot be applied to New Zealand without severe qualification. Staffing, libraries, facilities for research, never on a generous scale, have sometimes been ludicrously inadequate; even with the marked improvement that has taken place in recent years they rarely do more than approach accepted overseas standards. Possessing few large endowments from private sources, the colleges have had to depend mainly on direct or indirect financial assistance from governments which, with some exceptions, have kept a very watchful eye on educational expenditure of all kinds. Poor teaching conditions and, even more perhaps, the public attitude which their existence implies, have made doubly difficult the task of providing a real university education, and this in turn has encouraged the disposition to think of the university as if its sole function were that of professional training.

ADMINISTRATIVE PROBLEMS

Examinations and teaching.—Not unconnected with the outlook just described was the enthronement for a long period of external examinations (with papers set and marked in Britain) and of a form of administration which left the teachers themselves with little effective voice in university affairs. With the passing of the purely examining university in 1926 and its reconstitution on a quasi-federal basis the teachers gained new powers, and the movement toward having examinations conducted in New Zealand, which had begun a few years before, has been accelerated. Federalism and examining internal to New Zealand have their own problems—to teach according to a syllabus com-

mon to three other colleges and to come to an agreement on the details of standards and examination papers can be a trying, not to say exasperating, process. It should be noted, too, that university colleges as small as those of New Zealand cannot hope to indulge in a high degree of staff specialization, and that the understaffing and duplication already mentioned have stood in the way of attaining as much as might reasonably have been achieved. An illustration is provided by a typical department of philosophy. Here one professor and one lecturer are responsible for the teaching at all stages of philosophy proper, logic, ethics, and four or five branches of psychology, including experimental psychology. This, perhaps, is the aspect of New Zealand university life that most impresses, and even alarms, the new appointee from overseas; and it helps to explain why it is that so large a part of the energy of a conscientious teacher is absorbed in the preparation and delivery of lectures.

All this gives point to the plea of the professor of the University who wrote in 1938: "It is necessary, in the first place, that the personal element in university life and teaching should be restored to its central and pivotal place, that no teacher should be prevented from giving what he is able to give, or compelled to give what no individual intellect can compass with accuracy and integrity. The jurisdiction of foreign mandarins should be summarily abolished, and the hateful office of 'Home examiner' forever rendered void. There must be far more autonomy and individuality as to methods and content of instruction: the system of common papers and syllabuses must be liquidated and the calendar in which it is elaborated consigned to the flames. . . ."² Since this was written "the office of 'Home examiner'" has, in the professor's own subject, been "rendered void," and examining in Stage I subjects for arts and science degrees been made

² J. N. Findlay, "Reflections on the University of New Zealand," in *Tomorrow*, March 16, 1938.

purely internal to the colleges.³ But much of the criticism still stands. On the other hand, it would be wrong to underestimate either the extent or the effects of the advance toward autonomy. It is significant—one is not suggesting simple cause and effect—that the change has been accompanied by a marked raising of standards throughout a wide range of courses and subjects. (It should also be added that the critic just referred to, who is in a position to make comparisons, declared in his article that “there are few universities where the general tone is more consistently humane and liberal, and more free from sloth, bluff, intrigue, self-advertisement and other academic vices.”)

Scope of studies.—As for the scope of university studies, New Zealand would seem on the whole to have struck a fairly satisfactory balance. Respect for British precedents has prevented the elevation of anything and everything to the status of a university discipline, while conservatism has not been strong enough to exclude the newer studies. The general trend of the inter-war years is shown in the enrollments for the various courses. For men the greatest proportionate increases were in agriculture, science, and commerce (in that order); for women, in home science. The arts course, however, more than held its own.

These, in brief, are some of the facts and forces that must be kept in mind in any consideration of the future of higher education in the Dominion.⁴

PRESENT AND FUTURE NEEDS

Vocational specialization.—In New Zealand, as elsewhere, the conditions of the immediate future are likely to accentuate still

³ At its 1943 meeting the University Senate decided to extend internal examining to Stage II.

⁴ War-time changes, and such post-war problems as rehabilitation, are not touched in this article. The main effects of the war to date have been in the denuding of the arts, law, and commerce faculties of half or more of their male students and, especially in science, the direction of teaching and research towards specific war needs.

further the demand for vocational specialization that has been such a marked feature of the present half-century. Liberal capitalism is passing, and the movement toward a planned social order of some kind, with even greater differentiation of function than at present, appears to be irresistible. New Zealand ("New Deal-land" as an American visitor called her) is further along the road than most countries. Such an order, particularly if it sets out to make full use of the whole range of scientific knowledge, will depend to an unprecedented degree on highly trained specialists whose actions willy-nilly will have far-reaching consequences and whose education is, therefore, a matter of the highest importance. For the university to attempt to evade its share of the responsibility would be futile, and unhistorical to boot—professional preparation in accordance with the needs of the time has always been a function of higher education. Rather, the task is to provide the training needed, but in such a way as to ensure, as far as possible, that the new order embodies the full democratic ideal—freedom as well as security, taste and intelligence as well as efficiency, moral responsibility as well as social cohesion. Technical knowledge and skill will be essential—the day of the cultured amateur has gone—but it must be linked firmly with a grasp of social dynamics and a clear vision of civilized ends.

Education and life.—To say this is to be at once aware of the failure of much cultural education in the recent past, a failure resulting at bottom from the modern confusion of values and showing itself in *unbalanced* specialization, in the retreat to non-committal "objectivity," and in the complaints of those students who ask for, and do not receive, a satisfying interpretation of life. And it is to be aware of the difficulty of the task of reconstruction—of working out for mid-twentieth century democracy a cultural-vocational synthesis as coherent and as well adapted to its purposes as, let us say, that devised half-unwit-

tingly by the Public Schools and Universities of Victorian England for the very different purposes of the ruling class of an imperialism. Indeed, until a new cultural *gestalt* takes form in society at large the university itself cannot hope to achieve more than a provisional approximation to a solution of the problem. Nevertheless the widespread movement toward "integration," whether by the method of "orientation" or "survey" courses or by the method of "humanistic specialization" clearly points in the right direction.

The need for further specialization.—Of the two needs—better provision for specialization and the reconstruction of cultural education—the former is in New Zealand much the better understood. The disadvantages of an unusually low degree of specialization are obvious: in education and social work, to take only one example, progress in several directions is held up solely because of the lack of people with suitable training. If, however, the mistakes of the past are to be avoided it will be necessary to keep inter-college rivalries in check by adhering very firmly to the general policy of permitting development in any one field in one center only. The action, a few years ago, of the Auckland and Wellington Colleges in foregoing their claims to departments of agriculture in order to facilitate the establishment of the Massey Agricultural College near Palmerston North was a hopeful portent, as also has been the recent coordination of the work of this College with that of Canterbury Agricultural College through the linkage of the two institutions in a New Zealand School of Agriculture; but different feelings are aroused by a current agitation for a second medical school, when everything points to the desirability of a single school, split horizontally, if necessary, so that students would begin their course in one center and finish it in another.

Specialization will mean not only more advanced work in studies already admitted to the university, but also, in all prob-

ability, the admission of new studies, which raises the question of the proper scope of university activities. Much of the argument as to whether this study or that has a place in the university impresses one as being singularly futile, and an unconscious reflection of the class philosophy that distinguished sharply between the "technical training" of the social drudge and the "liberal education" of the aristocrat. In a democracy *all* education should be liberal in spirit, and such vices as triviality, superficiality, and a narrow utilitarianism should not be tolerated anywhere. It follows that once a general case for a subject or a course has been made out its inclusion in the university program is very largely a question of mere convenience of organization and administration. There may be good practical reasons for asking some other agency to handle it, but there is no excuse for lordly talk about "relegating" this or that "to other institutions." If the widening of the scope of vocational work is carried out in the spirit just indicated the process should carry no threat to the traditions of scholarship. Perhaps the contrary: an ivory tower may not be the best defense against the panzers of modern unreason.

Cultural and civic education.—To the general difficulty of a reform of cultural education that has already been mentioned can be added a depressing list of more specific obstacles: departmentalism; understaffing; the extent of the part-time system; an undue reliance on lectures of the potted textbook type—and so on. There are, however, signs that at least a minority of university teachers are aware of the problem that exists. For example, tentative experiments have been made with "introductory" lecture courses; some Stage I programs have been modified so that the student who does not proceed to Stage II gets a rounded-off course; some scientists are laying more stress on the social and philosophical implications of their studies; law students must now take five arts units before beginning their professional

course; there is more opportunity to look at pictures and listen to music. Yet it remains true that the student gets far too little help in integrating his knowledge and in building up social, moral, and aesthetic criteria. An arts course, at its worst, may be an aggregation of "units" devoid of any hint of unifying purpose. Indeed, teachers do not always appear to have very clear notions as to their educational aims even within their special fields. A foreign language department, for example, has a great contribution to make by giving its students a lively understanding of civilizations and cultures other than their own, but an excessive emphasis sometimes falls, with little attempt at rational justification, on philology and related studies. And, in general, much time devoted to minutiae of interest only to professors could be better devoted to bringing out the relation of studies to contemporary reality. This applies in some degree to professional courses such as medicine and law, in which there is special need for working into the texture of programs more of the significant content of the "new humanities."

It seems very likely that in New Zealand the method of humanistic specialization—"a kind of specialization in which the vocational subject forms the center from which scientific advances are being made into bordering fields of study"⁵ would prove more successful than the method of the introductory survey course. It fits in with the Dominion's vocational bias and would involve less interference with existing arrangements and vested interests. But experimentation, under bold and clear-headed leadership, is plainly required.

Teaching and research.—For reasons already given research in the colleges is overshadowed by teaching; but an increasing amount of it, including some of first-rate quality, is being undertaken. Moreover, such research organizations as the state De-

⁵ Adolf Löwe, *The Universities in Transformation*, p. 51 (London, 1940).

partment of Scientific and Industrial Research, the Cawthron Institute, the Wheat Research Institute, the Dairy Research Institute, the Plant Research Bureau, and the New Zealand Council for Educational Research are staffed in the main with graduates and ex-teachers of the University. Actually, in New Zealand as a whole, the volume of research work in certain fields is impressive, especially in those related to the Dominion's distinctive flora and fauna, to the improvement of the quality of farm produce, and to the exploitation of natural resources; in such directions few countries, if any, have made, in proportion to their population, a larger contribution to the world's store of scientific knowledge.

By contrast, research in socio-economic, psychological, and cultural fields has been backward, the failure of the University to grasp the opportunity to make New Zealand a center of Polynesian studies being symptomatic. The balance has been redressed to a limited degree during the past decade or so, but if the general argument of this paper is even roughly correct the needs of the future demand much greater development than has taken place. Much of the New Zealander's lack of self-awareness can be attributed to the fact that so little of his life has been recorded, analyzed, and interpreted. He is consequently something of a stranger in his own land—a dangerous condition in a society in which men are more and more being placed in positions in which their actions profoundly affect the daily lives of their fellow countrymen. No large volume of fundamental research in the human studies can be expected in New Zealand for a considerable time and it would be wasteful to attempt work of a kind that can be done more easily and effectively by the large organizations overseas; but there is no lack of local problems in urgent need of investigation. One hopes that provision for more research will go hand in hand with provision for college specialization and post-graduate study.

Academic freedom.—Almost everything proposed in the preceding paragraphs implies the maintenance, and, indeed, the strengthening, of the tradition of academic freedom. A university that is a cross between a cloister and a trade school can live in undisturbed peace; the more it reaches out to deal with living issues the more is it likely to be attacked. New Zealand has had experience of government interference, of weak college councils, and of councils that have stuck courageously to principle. On the whole, the tradition of academic freedom has been transplanted rather more successfully than in most of the "new" countries, and, in their professional capacity at all events, very few teachers have been made to feel that it is dangerous to speak the truth that is in them. Here are grounds for hope, but not for complacency. There are forces at work that, if unchecked, could carry the social and intellectual life of the country toward a pseudo-democratic totalitarianism, and New Zealand liberals note with concern that Britain's remarkable war-time record in regard to liberty of expression cannot be matched in their own country.

The problem of selection.—Although issues related to the selection of university students have been keenly debated for the past twenty years, there has been little concern with the possible danger of "overproduction of intellectuals." Graduate unemployment has never been a serious problem except for a short period during the great depression, and even on that occasion there were other sections of the community far more severely affected. The New Zealand graduate, moreover, inherits the democratic, jack-of-all-trades tradition of the pioneer, and is ready, if necessary, to accept almost any type of employment. The concern has been rather with the standard of the university entrance examination, its effects on the secondary schools, and, to a less extent, its reliability. University teachers have complained that the examination lets through a proportion of students who are not of the

intellectual and scholastic calibre university work demands. Secondary teachers, for their part, point out that a certificate intended only to give entry to higher education has come to be demanded as a qualification for jobs in business and for many semi-professional occupations, with the result that many pupils are in effect forced into a narrow academic course containing much that is quite irrelevant to their cultural and vocational needs. Further, research has thrown doubt on the reliability of the examination as an instrument of selection,⁶ thus reinforcing the implication of comparable findings overseas.

In 1934 an attempt was made by the Education Department, in consultation with the University, to solve the problem of the secondary schools by instituting a departmental school-leaving certificate which was of the same standard as the university entrance examination but permitted a wider range of options; but the move gave the schools little relief, mainly because the business world continued to ask for "matriculation." The University has now, however, given its approval to a scheme permitting entrance by accrediting, which, if widely adopted by the schools, will, in effect, force employers to accept the school certificate. Certain details have yet to be settled, but the main features of the scheme that is taking shape are: (1) that candidates will not be accredited until they have completed a post-primary course of at least four years (the present entrance examination can be passed comfortably by bright pupils in three years); (2) that, after taking a broad general course, candidates will include in the work of their final year three subjects that will be taken to a higher standard for university entrance;⁷ (3) that, while accrediting will be wholly in the hands of the schools on a list approved by the University in consultation with

⁶ W. Thomas, C. E. Beeby, M. H. Oram, *Entrance to the University* (New Zealand Council for Educational Research, Wellington, 1939).

⁷ The University Entrance Board has proposed that the only compulsory subject should be English.

the Education Department, standards will be safeguarded by the work of liaison officers who will act as a link between the schools and the colleges.

The scheme is promising in more respects than one. It offers a prospect both of better equipped university entrants and of adequate guidance at a point at which it is greatly needed. Equally important, it opens the way for a new type of secondary education that may provide a basis for the new cultural education needed at the university level. It is very doubtful if an academic course heavily weighted from the beginning with the "grammars" of foreign languages and mathematics and neglectful of so much of vital concern to the intelligent adolescent is the best possible preparation for the university. The result often appears to be a semi-sterilization of the mind. If it be objected that the necessary foundation of abstract knowledge can be obtained only in the old way, one can point to the impressive contemporary example of Air Force trainees who, beginning often with very meager attainments, have astonished conventional schoolmen by the speed with which they have mastered their mathematics and science.

Although New Zealand may be prepared to accept rather more rigorous selection for specific purposes, she will almost certainly insist on an even larger measure of equality of opportunity than exists at present. The extent to which students taking courses requiring prolonged full-time attendance at the university are drawn from the more prosperous classes is the subject of recurring criticism, especially with medicine and dentistry, in which there is a demand for adequate scholarships for the able children of homes with modest incomes.⁸

The university and teacher training.—Reference cannot be omitted to the relations between the four university colleges and

⁸ Since this was written the Government has met the demand by bringing into operation a new scheme of bursaries for medical and dental students.

the four teachers' training colleges that exist beside them in each of the main centers. The training colleges admit the great bulk of their students straight from high school, giving them a two-year course (with a third year of specialization in some cases) directed toward teaching in the primary school. There are also small university graduate groups who have a one-year course in preparation for post-primary teaching. Some students (mainly women) do no university work at all, but a fair proportion undertake university studies concurrently with their training college course. This arrangement is largely responsible for the high proportion of part-time students in the arts faculties, and it is charged with creating division of loyalties in the student's mind and subjecting him to over-pressure. There is, moreover, no organic relation between the training colleges and the university departments of education which provide a four-year course leading to an M.A. degree. There is much to be said for the suggestion that some of the difficulties would be solved by the merging of the two in university schools of education. On the administrative side the proposal raises the problem of the role of the education department, which will certainly insist, not unreasonably, on retaining if not extending its present influence over the preparation of teachers. Moreover, unless those responsible for such a change had a sensitive feeling for the subtler educational values the losses to the training colleges might easily outweigh the gains. One training college in particular has succeeded to quite a remarkable degree in integrating its whole life on a creative level. It will, therefore, not be easy to reach a solution that does justice to all the relevant facts and values.

CONCLUSION

Education and social needs.—In an age of radical social change, when old patterns are being wrenched and fractured, a sociological approach to education becomes imperative. Social needs press

insistently, and "men must act." Such is the justification for the emphasis in this article. A university today has the inescapable duty of interpreting the social process, and, so far as it may, of equipping its students to deal effectively and imaginatively, both as professional workers and as citizens, with the problems of the new world. "So far as it may": the odds in favor of a more planned social order are overwhelming, but it is impossible to foresee more than its general contours; and there are obvious limits to the help that even relatively youthful university teachers can give to the generation that opened its adolescent eyes on the great depression, watched the drift to war, and is now fighting on the world's battlefronts. Conscious social purpose in the university needs to be combined with a due measure of humility.

In making the adjustment the university will, one hopes, never forget that man is more than a vocational unit, more than a civic unit, more even than a social unit. To say that certain tasks are essential at a given point in history is not to say that they are those in which one believes man can be most profitably engaged for all time. There may eventually emerge a relatively stable and harmonious social order, largely self-regulatory in character, in which many of these tasks are mercifully unnecessary. It would then be possible for the educationist to think much more in terms of personal development. But that time is not yet.

SCOTLAND

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SCOTLAND

HISTORICAL DEVELOPMENT

Early foundations.—The most ancient of the four Scottish universities was a thriving institution long before Columbus was born, and the youngest member of the academic sisterhood was thirty-seven years old when the Pilgrim Fathers set out on their momentous voyage. Elsewhere I have told the story of the origin and development of these strongholds of learning which, astonishingly, came into existence in a small impoverished country before medievalism had vanished and, despite many vicissitudes, today play an important part as modern universities of a distinctive type.¹ It is unnecessary to review again the individual history of the universities of Scotland but an appreciation of their present position demands at least a swift survey of the historical framework in which they are set. St. Andrews, Glasgow, and Aberdeen are fifteenth century foundations which were established through the foresight and generosity of the Princes of the ancient Church and were duly blessed by Royal Charter and Papal Bull. Initially, their chief function was the training of a succession of educated Churchmen, but even five centuries ago the desire for access to learning was a marked characteristic of the Scot and the three Papal universities gradually adopted the wider policy of making the training they provided adaptable to laymen and applicable to the needs of a secular world. The way was thus prepared for the new attitude toward education which found expression after the Reformation in the establish-

¹ Sir James Irvine, *The Scottish Universities (Scotland and Its People, No. 7; Edinburgh, 1942).*

ment (1583) of "The Town's College" of Edinburgh, and this civic university played a praiseworthy part in making the higher learning available to all. The schemes of the Reformers included also the establishment of parish schools throughout the country and thus it came that direct continuity was established between the schools and the university; the familiar ladder of learning had actually been raised in Scotland before the Union of the Crowns in 1603 and many a "lad o' pairts" has climbed its steep steps in the course of the centuries.

When Scotland healed her feud with England by providing her neighbor with a King, it was not a case of an uneducated barbarous people becoming absorbed in a nation of superior culture and greater educational enlightenment, for the Scottish universities had long enjoyed the esteem of all sections of the Scottish people. That feeling, in which pride and affection are mingled, persists undiminished to this day and the fact need cause no surprise for, from their beginnings, the four Scottish universities have been among the most democratic in the world. Noblemen's sons and ploughmen's sons sat on the same student benches, sharing the same fare at the common table, and although class distinctions were recognized in the varying fees paid by students the aristocracy of the mind was not denied honor through class prejudice.

Transition period.—The transition from the progressive post-Reformation period to the conditions of our own times has not been easy, and in their endeavor to equip themselves to meet the changing conditions of a changing world these gallant academies have passed through many critical periods. The Reformation brought not peace but a sword, civil war swept over Scotland, and political and religious strife endured throughout the greater part of the seventeenth century. Nevertheless the universities did not languish, for within that stormy period they altered their teaching curricula drastically and proceeded to modernize them-

selves. Latin was taught as the means of giving access to a great literature and not merely as the vehicle for dispensing the Sacraments of the Church. Greek was introduced for the same reason; mathematics, natural philosophy, and astronomy found able exponents and the idea became consolidated that knowledge should be used for the common good and not be hoarded, as miser's gold, by the scholarly recluse. Considering the disturbed conditions of the times, these educational advances are worthy of note, but the most significant step then taken by the universities was political rather than educational. All attempts—and they were many—to bring the universities within the firm control of Church and State were stoutly resisted until, to the lasting benefit of Scotland, academic autonomy and academic freedom were won.

The next major difficulty to be surmounted was created by the Union of the Parliaments in 1707, a centralization of authority which drained Scotland both of many of her leading men and of those who aspired to acquire leadership. The effect on the universities was profound. The sons of the nobility turned to Oxford and Cambridge for their educational opportunities, students from south of the Border or from abroad dwindled in number and, for a period, the main efforts of the Scottish universities were bent to satisfying the thirst for knowledge in the needy youth from humble homes. It was a praiseworthy task and one which exposed the universities to sore financial straits but, fortunately, the period of decay was of short duration for soon the high standard of education available in Scotland at modest cost became widely recognized in England and overseas. The rise of the great Medical School of Edinburgh, the prestige of the early Scottish scientists, the work of the Scottish philosophers were among the factors which combined to endow the universities with a well-deserved and enduring reputation. Thus it came that during the important formative years when the edu-

cational system of the United States was being fashioned there arose a close and lasting bond between Scotland and America; the debt thus incurred has been handsomely acknowledged and generously repaid by the support given to Scottish education in time of need by many citizens of the United States.

THE NINETEENTH CENTURY

Modernization.—The century during which America was consolidating her newly-won freedom, expanding her boundaries to the west, and forging the link of Union on the anvil of civil war, was spent by the Scottish universities in experimenting with constitutional changes designed to relieve the professors of the burden of administration and the care of the finances, responsibilities which they had inherited from the Middle Ages when universities were societies of masters and scholars. These alterations in government had little effect on the teaching curricula but they certainly diminished the sense of trusteeship formerly associated with the occupancy of a Scottish professorial chair. Nevertheless the *Senatus Academicus* remained as before entirely responsible for teaching, graduation, and research, while the newly formed *University Courts* played the part of Chancellor of the Exchequer to the academic Cabinets. The essential method of instruction continued to be by means of formal lectures and a wide gulf separated professors from students, who for the most part lived in lodgings and were thus deprived of the benefits of the communal life which was part of their birthright. The life of the student, if happy, was austere; the intellectual discipline was hard; but much solid work was done and the list of men, trained in this way, who afterwards attained distinction is astonishing in its length and variety.

Shortly before the Victorian Age ended, women students were admitted to full membership of the Scottish universities on the same terms as men; by their application to their studies—by

their deportment also—women students have justified this departure from the firm interdict of the early Founders, one of whom had decreed that “no woman shall enter the College save the laundress and she must be more than fifty years old.”

The foregoing introduction may serve to construct a picture of the university system of Scotland as the nineteenth century drew to a close and the stage was set for the tragic drama of our own times. In respect of student numbers, two of the universities—Glasgow and Edinburgh—were large in relation to the population of the country, while St. Andrews and Aberdeen remained of modest dimensions but had succeeded in retaining more than an external resemblance to the medieval universities from which they sprang. In all four centers there persisted a strong attachment to the classical tradition and it followed that Latin, Greek, mathematics, natural philosophy, moral philosophy, logic, and English remained the seven pillars of wisdom. But there were also well-organized schools of professional training in medicine, pedagogy, law, and theology, and the claims of pure and applied science to be given a more prominent place in the curriculum had at last been met. It must not be concluded that in adhering stubbornly to classics and philosophy, Scotland had stood aloof from the activities which were then shaping the new scientific age. The reverse is the case, for the experimental philosophies had engaged the earnest attention of many Scottish scholars from the time of Bacon onward, and the science of today owes much to their efforts.²

For the most part, however, these pioneers were solitary workers and access on the part of students to practical instruction was largely confined to the few selected disciples who were admitted to the privacy of professorial laboratories. The educa-

² See D'Arcy W. Thompson, *The History of Science in Scotland (Scotland and Its People, No. 5; Edinburgh, 1942).*

tional value of the master-disciple relationship is great—there is no better system—but the scale of working was clearly inadequate to educate the youth of a nation in the technique of science. Faculties of science were accordingly established, science degrees were instituted, new professorships and lectureships were created, but lack of means retarded the development, particularly in the erection of new laboratories equipped to meet the demands of experimental research on modern lines. From this difficult situation Scotland was extricated by the generosity of private benefactors, the most outstanding being Mr. Andrew Carnegie, who in 1902 gave ten million dollars to be administered on behalf of the universities of his native land. The effect of this timely benefaction was remarkable in many ways, including the acceleration it gave to the movement to modernize the universities. Student numbers increased, more professorships, lectureships, libraries, and laboratories were added, definite schools of research came into existence, and training in the applied sciences was provided on more satisfactory lines. Even the conservative faculties of arts shared in the development and the range of subjects leading to an M.A. degree was greatly enlarged with a consequent multiplication in the number of optional courses of study. Although these diverse avenues to the arts degree led ultimately to appointments in business, in teaching, or in the public service, the instruction did not include utilitarian education in the direct sense. The objective was to provide a general intellectual background, to train the student to think for himself so that he might apply a disciplined mind to the practical affairs of life. It may sound haphazard but the system was justified by results and perhaps the best proof of its value lies in the fact that most students of that period voluntarily delayed specializing in science, medicine, law, or theology until they had completed the arts degree as a preliminary fundamental discipline.

TWENTIETH CENTURY

Effects of World War I.—This phase of prosperity and progress, of leisured devotion to cultural study, was rudely terminated by the outbreak of the war in 1914. If any doubts then existed as to whether the improved conditions prevailing in the universities had undermined the virile manhood of Scottish youth, they were at once dispelled. Without waiting for conscription or other forms of compulsion, students at once threw aside their books and flocked to the war. The quadrangles of the universities emptied and the graves in Flanders filled; soon only men physically unfitted for combatant service remained and to these was added the continuous trickle of returned wounded. It was a saddening experience to be a Scottish professor in those dread years, but there was consolation in the contribution each university was able to make in solving the unexpected problems created by a war in which, for the first time, the full resources of science were drawn upon by an unscrupulous enemy. This country was short of raw materials and of numerous products which civilization had adopted as necessities; we had allowed the industrial production of fine chemicals to languish and, in consequence, had become largely dependent on German sources for supplies of many medicinal products and dyestuffs; we were unprepared for the onslaught of chemical warfare when, in violation of her pledged word, Germany condemned thousands of men to die a death of calculated agony. To meet these and other swift emergencies, the full research power of Britain was enrolled and Scotland, through the medium of her universities, was privileged to play a part in this work out of all proportion to her size. These were strenuous anxious years, but they provided convincing evidence that the educational structure of the country was sound and had not failed when confronted with the necessity to provide men en-

dowed with courage in the field and with resource in laboratory or factory.

Even before the close of hostilities it was evident that the after-effects of the war on the universities would be profound, but the circumstances following the Armistice afforded little opportunity to modify educational policy in conformity with the changed conditions of post-war Scotland. It was mistaken kindness but, with the laudable intention of enabling soldier-students to mend their broken careers as speedily as possible these men were immediately demobilized as a group. They returned to universities which were disorganized owing to the adaptation of their buildings for war purposes; they returned also to teachers who, for the most part, were no longer in their first youth and were exhausted by prolonged overwork. Although all possible help was willingly given to aid students to whom so much was owed, it proved a task of insuperable difficulty. Naturally, the students were desperately anxious to finish their courses quickly, but four years of trench life had dulled their receptive capacities and the unwieldy size of the classes made it impossible to provide the individual instruction which might have been successful where mass-production methods failed. Much could be written on the subject of the part a university should hereafter play in repaying her present debt to soldier-sons and I have dealt with the problem elsewhere.³ My immediate task is to analyze the effect of World War I on the Scottish universities, and within the limits of the present contribution it is impossible to do more than indicate in mere outline the academic conditions which were encountered in Scotland from 1919 onwards.

Entrance tests.—The statement that there was little opportunity to modify university policy after the War requires modification. The time was ill-chosen, for it was in the midst of the

³ Sir James Irvine, *The Academic Burden in a Changing World* (P. J. Anderson Memorial Lecture, University of Aberdeen, 1942).

academic confusion just described that new legislative machinery was created to control the conditions of entry into the Scottish universities. The system of imposing entrance tests is no novelty in Scotland for it dates back to the sixteenth century when the Town's College of Edinburgh was founded. So numerous were requests to be enrolled as students and so slender was the accommodation for their residence and instruction that there was no alternative—particularly in a new democratic order—but to select entrants on the basis of a competitive examination. This system was operated only intermittently and, generally speaking, access to the Scottish universities remained uncontrolled until 1892 when, acting under common Statute, the four universities instituted identical entrance tests which were adapted to meet the special requirements of arts, science, and medicine respectively. In 1918, however, in recognition of the improved courses given in the secondary schools, this system of "Faculty Tests" was replaced by a general acceptance (with a few attached conditions) of the leaving certificates which mark the completion of a secondary school education extending over five years. In theory, the change was to be commended as it made more continuous the passage from school to university and minimized the extra effort required of the schools to prepare for university entrance examinations the portion of their pupils (some seven per cent) who aspired to higher education. In practice, if twenty-one years' experience as Chairman of the Scottish Universities Entrance Board counts for anything, it is doubtful if these changes have been justified by results.

University finance.—Necessity bids me turn now to the important (if uncongenial) subject of university finance. The close of World War I found the universities confronted with a prospect not far removed from bankruptcy. Their ancient endowments were inadequate; their fee income had practically vanished during the war years and government support was almost

nominal. With rising costs and dwindling incomes, debts had accumulated to an alarming extent and the outlook was gloomy, but at this stage the Government took action on novel and generous lines. A University Grants Committee was formed which examined sympathetically the circumstances of each university in the country, and the most pressing of their needs were promptly satisfied. More than that—the Committee was put on a permanent basis and from 1920 onwards substantial annual grants have been made from H. M. Treasury for the support of all British universities. There were not wanting gloomy prophets who foretold that by acceptance of this help autonomy would be lost, that state support would inevitably bring state control in its train, and that the academic freedom won by our fathers would be endangered. These fears have proved groundless. The University Grants Committee has consistently carried out its work in a way which preserves both academic pride and academic liberty, and even during the years of acute trade depression the Government subsidy to the universities remained undisturbed. There could be no finer testimony to the attitude of the State toward learning.

Place of traditional studies.—The financial difficulties occasioned by the 1914–1918 war having in this way been overcome, and the initial rush of demobilized soldier-students having been dealt with by the universities, it became possible for the first time to take stock of the effect of the war on the educational outlook and the needs of the country. Scientific manufactures introduced for war purposes were expanded in many directions, the Government adopted scientific research as a permanent part of national policy, but somewhat surprisingly there was within the Scottish universities no revolutionary swing over from the traditional study of the liberal arts to that of applied science. True, all departments of science were filled to a gratifying extent and strictly professional courses such as medicine were also

largely attended, but it was by no means the case that a new fashion had been created which would relegate the less utilitarian arts studies to a position of secondary importance. It is difficult to account for this unexpected result. The inherent conservatism of the Scottish character—for in everything save party politics the Scot is essentially conservative—probably played a part; the long-established tradition of the schools accustomed to prepare pupils for the universities was no doubt another factor. The comparative cheapness of the arts course cannot have been entirely responsible for county grants have greatly eased the financial path of the needy student since 1919. Moreover, graduates in medicine and in the fundamental sciences were less exposed to the risks of academic unemployment than their comrades in arts so that the “loaves and fishes” argument cannot be widely applied. In short, it is impossible to resist the conclusion that the persistent attachment to the linguistic, philosophical, and mathematical course of training was founded in great measure on genuine disinterested desire.

Practical emphasis.—Nevertheless there was a decided movement in the direction of making all forms of university instruction more directly applicable to the needs of the outer world than was formerly the case. Within the province of arts studies, experimental psychology, political science, commerce, and social economics made substantial headway; in medicine there was a growing tendency for graduates to qualify for diplomas in special subjects such as public health, while in the basic sciences there was an increase in systematic training for research.

Research.—The institution of the Ph.D. degree was undoubtedly one reason why the custom rapidly developed of the best science graduates spending two or three post-graduate years in the research laboratories, and the claims of industry also played a part in this development, the desirability of which is still doubtful. It must be admitted that the volume of original work

issuing from the Scottish universities has thereby increased greatly but quality is of greater importance than quantity in all that concerns research and it must remain a matter of opinion if standards of quality can be preserved now that research training has become so highly organized and regimented. There are many who maintain that research of real value can be produced only by the limited few who devote themselves to original inquiry for the reason that they are impelled to do so from within and not because research experience is the passport to superior grades of employment. The point is often overlooked but it is inevitable that the more research carried out by graduate students the fewer are the opportunities for the mature professor to take a personal part in original work. There is a vast difference between the experienced investigator who, with a few skilled assistants, can devote himself undisturbed to the fundamental problems which appeal to him most and the director of research who, of necessity, must limit his activities to themes within the capacity of those who, in a research sense, are merely apprentices. There is room for both types—the master research mind and the research administrator—but in Scotland we make the mistake of combining these types in that overworked individual, the professor.

The universities as communities.—On the whole it may safely be claimed that in Scotland the unsettling years which separated 1926 from 1939 showed no sweeping movement toward utilitarian studies and the changes summarized above represented not so much revolution as mild reform mingled with a few mistakes. In other respects, the after-effects of World War I were social rather than educational, for there had come through war the realization that formal instruction, no matter how efficient, is not the only gift a university can bestow on her sons and daughters. The most important of these changes and one of the most valuable of these gifts is the restoration of collegiate residence

for students. It can be readily understood that at the time of their foundation the monastic spirit of learning permeated the Scottish universities, and doctors, masters, regents, and scholars lived under the same roof, their days regulated by an iron discipline. The Reformation brought many changes in this relationship and with the widening of the curriculum and the increase of numbers it was no longer possible for all students to be accommodated within the academic home; ultimately, as the university residential buildings fell into disrepair, the great majority of Scottish students forsook collegiate life and resided in lodgings or at their homes. Up to 1826 the residential system lingered on at St. Andrews which then reluctantly fell into line with the sister universities. The free, uncontrolled life of lodgings is perhaps consistent with the independence of the young Scot, yet there can be no doubt that much was lost by the abandonment of the communal residential life of the original colleges. Naturally it was difficult to persuade students, accustomed to the freedom of lodgings, that it would be to their advantage to submit to the measure of disciplinary control which official residence imposes, but the experiences of the War succeeded in driving home this lesson where professorial arguments had failed. Most soldier students had held commissioned rank in the Services and on their return to university life it was their desire to continue the social experiences and comradeship of the officers' mess. Reinforced by this new attitude on the part of students, St. Andrews made a swift recovery in restoring academic residence, and Glasgow and Edinburgh followed so far as their urban circumstances permitted. This adaptation of medieval custom to modern conditions has been strikingly successful and, in St. Andrews at least, only lack of means has stood in the way of making living in college applicable to all students.

The restoration of the residential system was not the only social change attributable to the war. In gratitude for soldier-

students' sacrifices, the Students Unions (i.e., social clubs to which all students are attached) were greatly improved, playing fields were multiplied, and facilities for study abroad were provided. Although admittedly much leeway had to be overtaken in these respects it was often debated at the time if too much was being done for the individual student. His life was infinitely more comfortable and he was less penurious than formerly for, as already indicated, the 1919 Act had placed at the disposal of selected students liberal maintenance grants drawn from public funds. There were certainly fewer examples of ill-nourished youths toiling in their lonely lodgings "cultivating learning on a little oatmeal," but there was a general tendency to ignore the warning implied in the statement that "the ladder of learning used to be—ought to be—difficult of ascent; now it has become a subsidized escalator." There is an element of truth in this caustic remark. Nevertheless the records show that the old spirit of self-sacrifice on the part of Scottish parents is not entirely dead and examples are more common than might be expected of brave struggles willingly undertaken so that the bright hope of the family might have his or her chance in life; unconsciously these worthy Scots are fulfilling the biological law that the efficiency of the few is attained by the sacrifice of the inefficient many.

Student rights.—It is difficult to generalize, but it seems fair to say that the new fashion of generosity to students did not noticeably undermine the essential virtues of the character of Scottish youth. As a rule students did their university work faithfully and well, yet there were some aspects of the interlude between the two world wars which call for less favorable comment. Vague ideas of self-government began to be circulated—the self-determination of small nations carried to a ridiculous extreme—and one result in Scotland was a departure from the laudable method of electing as Rectors of the universities men

outstanding in achievement whose tenure of office, if nominal, was an honor both to the university and to the students who, in conformity with ancient practice, elected them. Recently, Rectors have been selected primarily on the basis of their pledges to secure the "rights" of students somewhat to the neglect of the fact that more is being done for students than ever before and that the first right of students is to justify the privileges which they now enjoy. The abandonment of a system which gave as titular Rectors of the Scottish universities men such as Carlyle, Barrie, Clemenceau, Nansen, and Smuts is unlikely to be an improvement and it is obviously impossible to graft on modern conditions the medieval conception of a Rector's functions.

Intermingled with this attitude of students toward academic government is their attachment to National and International Unions, and although such activities are not shared by the majority of students they provide opportunities for the vocal few to hold numerous conferences where they air their views. Somewhat inconsistently, there has been in recent years comparatively little interest in party politics among Scottish undergraduates although Labour Societies have not been idle and the new Scottish Nationalist Party has striven zealously (but with scant success) to attract recruits from the ranks of studentdom. This does not reflect an attitude of indifference to world problems, judging from the topics discussed in student debating societies, and, despite the fact that some of the comments now made may appear critical, there has been remarkably little to complain of during the unsettled years when the world drifted from one major war to another. There was undoubtedly a revival of a practical interest in social problems and much excellent voluntary work was carried out by students in the slum areas of the cities, but this recognition of civic responsibility was not widely spread and was limited in scope. Of formal training in citizen-

ship there was little or none and, as throughout the ages, the Scot preferred to find his own way among the intricacies of community life.

The Universities and adult education.—Greater confidence can be shown in claiming that the twenty years' interregnum of peace was characterized in Scotland by increased attention to adult education and in this work the universities played a notable part. All grades of university teachers shared in the duties, sacrificing their scanty leisure to giving systematic courses or tutorial instruction, often in areas remote from their homes. The country was for this purpose divided into four areas corresponding with the geographical position of each university and each province made its own arrangements through a regional committee on which the university cooperated with the county authorities and the Workers Educational Association. Even the outbreak of the present war did not entirely interrupt these valuable activities although it gave them a new form. Members of the Armed Forces, British and Allied, found in the university adult education schemes an organization which has given service of incalculable value in keeping alive the intellectual life of men whose days were spent in arduous training.

World War II and higher education.—This summary has now reached the stage when the long-threatened storm of the Second World War burst over Europe. Once again, for the second time in a generation, students have been called upon to lay aside their academic gowns and to leave all that is most precious to fight for freedom. For the past four years the classrooms of the Scottish universities have been less crowded and every student who remains is adding to his studies a training for war; but the quadrangles are not so empty as they were twenty-seven years ago, for the lesson has been learned that the river ceases to flow when its springs are dammed. Recruitment for the fighting services from the ranks of university students is no longer the haphazard busi-

ness it was between 1914 and 1917 when, as at Flodden Field, "the Flowers of the Forest" were mown down. A determined effort has accordingly been made to secure that the supply of medical graduates, of science graduates, and of teachers will not sink below the levels necessary for the present war effort or for future requirements. Once more the universities have responded patriotically in placing their full facilities at the disposal of the Government and in modifying curricula so that undergraduates and Service students may qualify as quickly as possible. The university program is in consequence practically continuous; there is no longer any distinction between the astronomical and the academical year, and the expression *vacation* (whether "Long" or "Short") has ceased to have any meaning.

The depletion of staffs through the claims of national service has naturally added greatly to the responsibilities of those who teach and administer, but even as the burden grows heavier it is carried the more uncomplainingly. "Black-out" conditions and other inevitable restrictions have not been allowed to impede the university effort and few departments of study have been obliged to curtail their activities. Students have responded magnificently. Despite the claims on both men and women to give much of their time to training for war duties, to be in constant readiness to play their prescribed part in air-raid or fire-fighting emergencies—despite also the knowledge that at a stated date they will each be called automatically to national service in some form, they have recognized that they must overcome the distraction of mind caused by war's uncertainties and study with an intensity for which peace conditions can provide no parallel. That is the position today. If this same spirit can be carried forward into the post-war period, Scotland will have better reason than ever before to be indebted to her universities and to hold them in intimate affection as cherished children in the family of the nation.

UNION OF SOUTH AFRICA

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UNION OF SOUTH AFRICA

THE SOCIO-POLITICAL SITUATION

Factors of language and race.—The situation in the Union of South Africa is, in many respects, so unique that an account of the way in which the war is affecting South African universities and of their reactions to the war is dictated by the facts which make the South African situation so different from situations in other British Dominions.

All-important is a clear realization of background and setting. The Union of South Africa is a multi-racial caste-society, dominated by a "White" racial caste of nearly 2,200,000, to which are subordinate a "Coloured" (half-breed) group of upward of 750,000, an Indian group of about 250,000, and a mass of "Africans" (also called "Bantu," "Kaffirs," "Natives") exceeding 6,000,000. The White group itself is composite. About 60 per cent are "Afrikaans"-speaking and call themselves "Afrikaners" (*not* "Africans"!); about 35 per cent are English-speaking of British descent; the remaining 5 per cent are of various origin, mostly Jewish.

The universities reflect this composite structure. Four of them, viz., the Universities of Stellenbosch and of Pretoria, the Potchefstroom University College, and the University College of the Orange Free State at Bloemfontein, cater almost exclusively to the sons and daughters of the *Afrikanervolk* and use Afrikaans as the medium of instruction. None of these four admits any non-European students. Four others, the Universities of Cape Town and of the Witwatersrand, the Natal University College at Pietermaritzburg and Durban, and the Rhodes University

College at Grahamstown, use English as the medium of instruction and draw their students mainly from the English-speaking population. The two first-mentioned, however, have the only two complete medical and engineering schools in the country, so that Afrikaners desiring to qualify for these professions have to attend these English-medium institutions. Cape Town and the Witwatersrand also have no "colour-bar" and admit students irrespective of race; among the 2,000-odd students at each there are, therefore, handfuls of Coloureds (almost exclusively at Cape Town) and of Bantu and Indians (almost exclusively at the Witwatersrand). Rhodes University College admits no non-Europeans; Natal University admits less than a hundred non-Europeans to "extramural" classes at Durban, officially under conditions of strict "segregation" from their European fellow students. Lastly, the Huguenot College, at Wellington in the Cape Province, is a woman's college originally founded by American women; it admits no non-Europeans, but has both English-speaking and Afrikaans-speaking students.

For non-Europeans there is only one university college, the South African Native College at Fort Hare, near Alice, Cape Province, which caters mostly to "Africans," and limits Indian students to 15 per cent so as to preserve its "African and Christian" character. No European students, of course, attend there.

Jewish students are rare exceptions in the Afrikaans-medium institutions, where the atmosphere for them is uncongenial. Even at the English-medium institutions they have, nowadays, to contend with a certain measure of "anti-Semitism" among their Gentile fellow students.

Thus, South African universities and colleges reflect the fundamental divisions in the population: Afrikaner *v.* English; White *v.* Black; and to a lesser degree Gentile *v.* Jew.

Political forces.—As if there were not material enough for friction here, these divisions have been intensified and exacer-

bated by the varying reactions of different sections of the population to the war.

In September, 1939, the Union Parliament voted for South Africa's participation in the War by a small majority (80 : 67). The Prime Minister, General Hertzog, resigned on the defeat of his neutrality policy. The "Fusion" Government, formed of his and General Smuts's followers, broke up. General Smuts became Prime Minister with the support of the whole English and Jewish population and of a sufficient section of Afrikaners to give him a working majority. To avoid a repetition of the civil war with which South Africa entered the First World War in 1914, the civil population was disarmed, but the anti-war sections of the people were, and are, given ample freedom to express their dissent from the Government's policy—a magnificently quixotic demonstration of democratic freedom!

In the circumstances conscription for the war was out of the question. The South African Army is a volunteer army, and its members, in deference to opposition feeling, were asked to volunteer only for service in Africa, though in the end the concept of Africa was conveniently extended to cover Madagascar and even the island of Reunion. Before South African troops can take part in crushing Hitlerism in Europe, Parliament will have to approve their service outside of Africa, and the soldiers will have to volunteer afresh. Of all nations engaged in this "total" war, the Union alone is prevented by internal divisions from waging war in "total" fashion. Nothing illustrates the powerful inhibitions to a "total war" attitude more eloquently than the fact that the White minority, afraid of the Native majority and its fighting traditions, refuses to let any non-Europeans be trained for combatant service, so that the manpower of the seven million non-Europeans is used only for auxiliary services, the number of non-European volunteers being correspondingly small.

The following quotation will add a touch or two to the picture:

When they read of the *Blitzkrieg* over Britain the British in South Africa are almost ashamed of their good fortune. With income-tax a mere fraction of what it is in Britain, and enjoying immunity from the vaster perils of war, they suffer from a sense of frustrated loyalty to their own cause which can find no obvious outlet save in opposition to the Nationalist Republicans, and even then has to be of a restrained order if it is not to embarrass the Government. If the British feel this sense of frustration, the Nationalist Republican Afrikaners are in no better case. In Parliament they are impotent; and out of it, while strong in numbers and not lacking in the possession of leaders, the more bellicose of them are without arms, while the less bellicose are uncertain of the wisdom of extreme policies. While there do exist large numbers who would favor a *coup d'état*, and even armed revolt, there is a strong restraining influence. At the same time the conditions in which violence flourishes are ever present, and it is perhaps the greatest contribution General Smuts has made to his country that he has been able to ensure a measure of domestic peace in the midst of so much explosive material.¹

The effects on the universities of these deep divisions within the White population, and between it and the non-European groups, may be described as follows:

Within the student bodies there has been, on the whole, little friction. Actually, the predominant segregation into Afrikaans-speaking and English-speaking universities may have assisted in keeping the peace. On both sides, the minorities have been so small that they were powerless to engage in provocative activities, and the university authorities were generally alive to the danger and exerted pressure in support of mutual tolerance and calmness. For example, in Pretoria only 8 per cent of the students are English-speaking; in Potchefstroom only 1 per cent, and the Registrar of this latter institution says significantly that "they have no influence on student life." On the other side, Rhodes University College reports, "We have no difficulty here between

¹ Calpin, G. H., *There Are No South Africans*, p. 372 (London and New York, 1941).

Afrikaans- and English-speaking students. They mix extremely well and are on friendly terms. There are, of course, some Afrikaners who are not in sympathy with the war policy of the Government, but they are small in number and are such decent people in other respects that their presence has caused us no embarrassment." This type of reply holds also for Natal University College. At Cape Town there was "some unrest" at first, but the suppression of "open party politics" soon re-established relations of mutual tolerance of, if not of sympathetic respect for, one another's convictions. In general, open dissension was avoided by refraining from political argument and silently accepting the deep cleavage. This applies to members of the staff, too.

Naturally, the records of the universities and colleges in respect of voluntary enlistment of students vary according to their affiliations with the Afrikaner or English sections, respectively.

THE WAR AND THE UNIVERSITIES

Students and army service.—The Government itself laid down as guiding principles that students in the faculties of medicine and engineering were to continue their studies, on the ground that trained engineers and doctors would be wanted both during a long war and after the war; that, in other faculties, students under nineteen years of age (of which there are many in the South African universities) should not be pressed to volunteer; and that even students above that age should postpone enlistment, if near the end of their courses and within reach of their degrees. In some English-speaking university institutions, the authorities (generally the principal) encouraged students to enlist, subject to the above principles. In others, the Witwatersrand for example, the decision was left entirely to the students and their parents. Even so, some universities did not wholly escape uninformed criticism by the type of "man in the street" who,

unable or unwilling to volunteer himself, tries to satisfy his spurious military ardor vicariously by complaining that university classrooms are full of "able-bodied shirkers."

Actually, the records of the English-speaking university institutions in respect of enlistment are, in all the circumstances, creditable. When allowance is made for all those who are too young; or who are completing their academic studies in terms of the principles laid down by Government; or who as Afrikaner Nationalists and Republicans could not be expected to volunteer for a war of which they disapprove; or who, however healthy looking, are suffering from physical disabilities; or the few who have genuine conscientious objections on Christian grounds—the number of "shirkers" (of the type which reasons: "now that our competitors are in the army and may never return is the time for us to seize the positions available and get a few years' start on a professional career") is very small. The figures for Rhodes University College may be taken as typical for English-speaking institutions, without engineers or medicals, but with a fair sprinkling of Afrikaners: of 233 full-time men students when the war broke out, 142 had, by June, 1942, enlisted for full-time service in the army.

Naturally, the figures for the Afrikaans-speaking institutions are not equally good. But, even from Potchefstroom, representing as a whole one of the most anti-Government Afrikaner sections, a few students enlisted, and there were volunteers, too, from among the past students of this institution. From other Afrikaner institutions, enlistments, though small absolutely, were larger relatively, with Pretoria showing the best record (104 enlistments by June, 1942, out of more than a thousand students).

It is not to be overlooked, moreover, that many students, especially those with scientific qualifications, can serve their country best, in a mechanized war, by doing specialized work far behind the fighting-front, including munitions-making. At

Natal University College, students deciding to join up "are advised as to the Unit in which they can give the best service. All electrical engineering students are earmarked for Special Signals. Mechanical and civil engineering students go into Engineer regiments unless specially trained for Special Signals for Air Force ground staff. Graduates in Physics are recommended to join the Special Military School for Radio Communications at Howard College and then go automatically into Special Signals. Graduates in Chemistry are recommended to join special technical units or to proceed to munitions or war-production work."

Women students, too, both past and present, have freely joined the two Women's Army organizations, or have gone into munitions-making or nursing.

For those students still too young to volunteer, or engaged in finishing their courses before enlisting, University Training Corps have been established. Such a Corps is voluntary, and the larger Corps have artillery, infantry, and engineering branches. Every English-speaking institution has such a Corps; so, among Afrikaans-speaking institutions, have Stellenbosch and the Orange Free State College. In the latter, however, the members of the small Corps are almost wholly drawn from English-speaking and Jewish students resident in Bloemfontein, whilst the Afrikaner students from rural areas hold aloof. Potchefstroom and Pretoria have no Corps. The students who are trained in these Corps—drilling in their spare time and going to Military Camps for part of their vacations—nearly all join up full-time after taking their degrees, and sometimes before.

The teaching staffs.—The officers of these Corps are generally drawn from members of the university staffs. Other staff-members have enlisted for full-time combatant service, or have been absorbed by the Government either into one or other of the specialist services which every modern army needs, or into the organization of the country's war-economy. From the Wit-

witwatersrand University, nearly fifty professors and lecturers are in whole-time or part-time Army Service. Even from Potchefstroom there are two, from Pretoria six, from Stellenbosch ten. On the other hand, some Afrikaans-speaking members of university staffs have pushed their opposition to the Government to such lengths that they have had to be interned for "subversive" activities. This has happened, e.g., to a lecturer in the department of Afrikaans at the Witwatersrand University, to a professor of philosophy at Potchefstroom, and to a few Afrikaner extremists at other universities. Most of those interned belong to the *Ossewabrandwag* ("Sentinels of the Ox-Wagon"), an Afrikaner imitation of Hitler S.A. and S.S. formations.

During the First World War departments of German in English and American universities often suffered. Professors and lecturers of German origin and sympathy were dismissed or interned. Students fell off, showing their detestation of the enemy by boycotting his language and literature. Of this war phenomenon, there has been little evidence in South Africa so far. The lecturer in German at the Natal University College has been interned on the ground of his outspoken Nazi sympathies. Others, giving no cause for complaint, have not been interfered with. There has been no marked tendency for student attendance in departments of German to fall off—not even in English-speaking universities, where anyhow the German classes have never been large, because the languages favored in the English-medium secondary schools are English, Afrikaans, and Latin. In the Afrikaner universities, the German classes are commonly better attended, because the students have generally taken German, in place of Latin, at the Afrikaans-medium secondary schools. And, of course, many anti-war Afrikaners are hoping for a German victory, under the illusion that a victorious Hitler will let the *Afrikanervolk* set up its own Republic, independent of the British Commonwealth of Nations. To men so minded

the acquisition of German seems the proper preparation for Afrikaner independence under German tutelage.

Student enrollments.—The student enrollment of the English-speaking universities has, naturally, tended to be adversely affected by boys and girls, who would normally have gone into the universities after matriculating, going into the Army instead, and by students, both men and women, enlisting before completing their degrees. The smaller institutions have suffered most; the larger universities, in which engineering and medicine account for more than 50 per cent of the total enrollment, have suffered relatively less. The Afrikaans-speaking universities have not shown decreases at all, but report normal enrollments or normal increases, as if there were no war at all. As loss of students means loss of income, both directly from students' fees, and indirectly from the Government grant to universities which is, in part, calculated on the principle of £ for £ for fee-income, the smaller institutions have been hard hit, especially Natal. Even at the Witwatersrand, reckoning an average fee of £50 per student per year, the loss of direct income from the enlistment of over 300 students totals over £15,000 per year. Pressure is being brought on the Government to give extra financial assistance to institutions which are handicapped by their students' support of the war, whilst the income of Afrikaner institutions has not been affected adversely at all. This is one of the inequalities resulting from the uneven distribution of the burdens of war under a system of voluntary enlistment, in a country deeply divided on the war issue.

Non-Europeans.—The Non-European volunteers have been drawn almost wholly from men with little schooling, and no university training. The small number of past and present Non-European university students at Fort Hare, the Witwatersrand, Cape Town, are too keenly aware of the denial to them and their kind in our racial-caste society of many of the so-called democratic

"rights," for the preservation of which the Union professes to be fighting. Not unplausibly, they argue: "Why should we fight for principles from the benefits of which we, as Non-Europeans, are excluded?" The Principal of the South African Native College, Fort Hare, writes as follows:

In my view the attitude of the educated African towards the war is dulled by the sense of inferiority under which he lies and by the feeling that the great causes for which we are fighting are not held in full measure to be applicable to his condition. I believe that Natives are watching with intense interest the development of the situation in India as indicative of the mode in which progress may be made towards greater constitutional freedom. They do not think of the plight they would be in if Hitler and Company gained the mastery; I do not believe that they think there is any danger of this, but they do see the rare and refreshing fruit of Allied victory at too great a distance to feel overmuch concerned at present. I think they are wrong in this, but I believe this to be their general attitude.

The Indian students, like the South African Indian population generally, consider that they have a special reason for lukewarmness, if not downright disaffection, in the failure of Great Britain to gain the whole-hearted support of India for the war. Most of them blindly follow Gandhi's policy, and they look to an independent India after the war to bring heavy pressure to bear on the Union for the removal of the galling disabilities (e.g., no political franchise; residential segregation; restrictions on business enterprises, etc.) under which South African Indians are made to chafe by the dominant White group. Like the Coloureds and Africans, Indians have not been allowed to volunteer for combatant service, nor can even university graduates among the Non-European volunteers attain Commissioned Officer rank.

In these circumstances the marvel is, not that so few, but that so many, have volunteered. However, I do not know of a single university graduate among these Non-European volunteers. As for Non-European women, whether graduates or not,

there are no Army organizations open to them. The existing organizations are all restricted to White women.

UNIVERSITY STUDIES DURING THE WAR

Research.—The scientific, including the medical, departments of some of the universities are assisting the war effort with special investigations. Details of this work are, however, official secrets. Suffice it to say that the departments concerned are mainly physics, chemistry, metallurgy, electrical, mechanical and civil engineering, and meteorology. The professor of mathematics at the Witwatersrand University has rendered valuable service as a cipher expert in deciphering, *inter alia*, the Italian military code messages during the Abyssinian campaign.

Army education.—The English-speaking universities, with the assistance of individual members of the staffs of two of the Afrikaner institutions, have cooperated in an Army Education Scheme, under which teams of lecturers, both academic and non-academic, are assisting the Army Information Officers, under Lt.-Col. E. G. Malherbe as their O.C., in giving lectures on the causes and issues of the war, on economics and problems of reconstruction, on Democracy, Fascism, Communism, etc., to military units and military hospitals in their areas. This lecturers' organization has its headquarters at the University of the Witwatersrand, where the writer of this article acts as its O.C., with military rank as lieutenant-colonel; and it has branches in Cape Town, Grahamstown, Bloemfontein, and Pietermaritzburg.

THE UNIVERSITIES AND THE FUTURE

Social issues.—The curricula of the universities show at present no signs of being affected by the war, or by the prospect that the world after this war will be very different from the pre-war world. This is accounted for by two facts which cannot

be sufficiently emphasized. The first is that a racial-caste society, like the South African one, is bound to be extremely conservative. The dominant White caste is determined not to share its political, social, economic, and educational privileges with the Non-European population, and to resist any claim of the latter to "equality" of rights, opportunities, or status. The other is that, for all the excellent performance of its troops in Abyssinia and Libya, the Union is more on the outer fringes of the present war than any other combatant country. No active enemy threat has come nearer to it than a certain amount of submarine activity on the Western and Eastern sea-routes round Africa. The defense against this danger lies with the British Fleet; the Union has no fleet of her own with which to protect herself or the convoys that carry her troops to and from North Africa or bring her much-needed supplies from Europe and the United States. As stated earlier in this article, this "total" war is very far from "total" for the Union.

By and large, the Union's established structure has barely begun to be strained; no major changes or readjustments have been, or look like being, forced upon it. The Atlantic Charter promise of "Social Security" for all has, indeed, fired the imagination of some, but the first "Social Security Code," put forward with much blowing of trumpets by a Durban group, was completely tied to the racial-caste structure of the country in that it proposed four different funds, one for each racial group, with maximum benefits to the privileged European group, and steeply descending benefits to the Non-European groups, until the Africans, the poorest and least "secure" of the poor and insecure, were offered little more than more efficient health-services, to make them fitter workers in European factories and on European farms. The Afrikaner section as a whole, and especially the powerful Dutch Reformed Church, looks upon the whole social security movement with intense suspicion, as a for-

eign importation of British inspiration and threatening to break down the cherished self-isolation of the Afrikaner. Meanwhile, some of the professors at the University of the Witwatersrand and Cape Town have taken the lead, together with colleagues in Natal, in trying to re-think the problem of social security and work out proposals for overcoming the extremely low productivity, and, therefore, the poverty, of the Union population as a whole; pooling the national resources, thus effectively increased; and bringing the benefits of security to those, White or Black, who need them most.

The words "New Order" are much bandied about, and recipes for new orders range from the Christian-National Republicanism of the Afrikaner extremists—an Afrikaner adaptation of Nazi ideas—to a doctrinaire communism, the adherents of which are more familiar with the text of the gospel according to Marx than with the actual Communist experiments of Russia. But, the established racial-caste system is as yet far from cracking or dissolving, and there is no potent urge to change. In this essentially conservative atmosphere, no breath of change is moving in, or issuing from, the universities of South Africa, unless it be, in the Afrikaner universities, change to a "Christian-National Republic." But, this is a change in a purely *reactionary* direction—aiming at a non-democratic order, in which the Afrikaners will be the dominant *Herrenvolk*, not only over all non-Europeans, but also over all non-Afrikaner Europeans. Thus, whether Afrikaner or English in character, the South African universities remain the organs of a dominant White group content with the place which it has built for itself at the top of the Union's racial-caste structure.

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UNITED STATES

I

The American College

BY

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THE AMERICAN COLLEGE

THE TERM "COLLEGE"

Absence of uniformity.—The term "college," as it is used colloquially and understood among all sorts and conditions of Americans, is scarcely susceptible of definition. It includes not only institutions of the conventional four-year liberal arts pattern, but more than five hundred junior colleges, a host of state teachers colleges, technical institutions, and state colleges of agriculture and mechanic arts. Moreover, special institutions of various sorts must be taken into account if we are to see the picture in its entirety.

Although most of these colleges are approved and accredited by some responsible agency for all or part of their work, they differ widely in the type of student to whom they appeal and in the extent to which they place emphasis upon the affairs of the mind or the spirit. Some enjoy great prestige as centers of learning, seats of culture, devoting themselves to pure scholarship; they seek to attract only brilliant students who have high intellectual curiosity and are able or willing to sound the depths of scholarship. Others emphasize the social amenities of college life. Still others stress vocational instruction. Many are operated for the benefit of those who want to go to college without too definite a purpose. Some are frankly academic filling stations, willing to teach almost anything to almost anybody. No doubt a few would admit that they are nondescript, but certainly, in the light of critical analysis, some there are that seem indifferent to the type of material admitted and to the ends to be attained so long as the budget is balanced in whole or in part.

THE COLLEGE AND THE PUBLIC

Confusion of aims.—It has long seemed as if a college education were the birthright of every American boy or girl. Our faith in the magic word "college" is so widespread that we aspire to it regardless of the life we may expect to live after graduation. Historically, the growth of this faith has reflected many pressures, both social and economic, of which we have only recently become aware. Although it is not by any means assured that a college course is the best preliminary to any and all adult activities in the American scene, nevertheless, the common desire for higher education has been so strong and so general, and the expansion to meet it has been so wide and so varied, that the college field is today a welter of aims, purposes, and means. There is a degree of confusion in this field that can only be termed an educational ferment.

On the surface it would seem as though the operation of a college would be exceedingly simple, and it would be if there were consistency of purpose and means. In reality the college is one of the most complex and difficult of all our social institutions. It will not, indeed it cannot, stay put. The pressures are in a constant state of flux. Furthermore, the institution cannot ignore any of these forces. Because no institution is, or can be, indifferent to public favor, few colleges are able to remain aloof from the scramble for students.

The American college is, both typically and historically, a teaching institution. True, certain of our colleges pay attention to research and assign large sums of money to research activity; but by and large these activities are most prized for their contribution to the training of young scholars and scientists who are to work in academic centers, governmental agencies, or industrial laboratories. Consequently the American college for years has measured its job largely in terms of students taught.

EQUALITY OF OPPORTUNITY

Provision of higher education.—Omitting junior colleges and other essentially secondary institutions, there are more than 800 institutions of higher education in the United States—one-eighth of this number receive aid from the public treasury. No other country has ever dreamed of supporting so many institutions or of encouraging half so many students (relative to the whole population) to undertake a college education. Organized education at all levels represents the supreme attempt of American democracy to provide, at public expense or on private foundation, a complete preparation for life open to all, irrespective of religious, social, political, or economic differences. Colleges and universities have been made possible only through great sacrifice. Their founders have been actuated by a supreme faith in the value of education. The institutions have been dedicated to the perpetuation of the best idealism of the time, together with the transmission of the approved knowledge, practices, and tradition. The publicly controlled institutions have paralleled the establishment of popular government and are recognized in the organic law as well as in countless statutory provisions as essential to the American form of civilization. The combined offering of publicly and privately supported institutions cares for some seven million secondary students and upward of one million college and university students.

It is easy to cavil at this growth in attendance, yet in no other field of institutional activity that is peculiarly identified with the national life of the United States have the American people been clearer in their determination to provide an educational opportunity equally open to all, which will express the nation's ideals and the nation's spirit. These institutions, secondary and collegiate, at first voluntary and more or less exclusive, have steadily gained in the affections of the public

until now attendance at one or both levels is expected of almost everyone. No American community, local or state, has for long turned a deaf ear to the needs of its schools, elementary, secondary, or collegiate. The details of the picture may not be uniformly pleasing, but a fundamental faith in education is as much a part of the typical citizen of the United States as is his determination to separate church and state or to maintain representative government. Churches, both Catholic and Protestant, have uniformly sponsored education. Labor and capital, farmers and tradesmen, North and South, East and West—all have united under this belief. Millions of persons have been attracted to the country by the educational opportunities which it offered. The program of secondary and collegiate education is distinctively American. Unless there is a fundamental change in attitude, there is every evidence to suggest that the doors of American educational institutions will continue to swing wide open.

Colleges have risen in the public esteem as a result of their wealth of ideas, of personalities, and of convictions. They are accepted as essential to the American form of civilization. Society as a whole still needs the college, not only as a conserver of the past but as a creator for the future, not only as a teaching institution where students have access to the accumulated lessons of the past but as a place where methods of searching for truth are taught, where the spirit of inquiry thrives.

THE COMPETITIVE SPIRIT

Financial needs and enrollments.—The relations of colleges to the public have, however, produced a situation which cannot be neglected in a discussion of higher education in the United States. All institutions need money. They must have it in varying amounts if they are to survive. They must have students in sufficient numbers if they are to keep their staff. They must have

scholarly ideals if their very existence is to be justified. Examples are all too numerous of institutional demoralization due to bidding for students by offering "to teach anything to anybody." What is more demoralizing than the acceptance of students on false claims? All too frequently students have been invited and even urged to attend a particular college to pursue some particular course under utterly hopeless conditions of pretense. These compromises threaten the existence of some of the colleges, to say nothing of defeating their purpose as civilizing factors.

No college can be free from the necessity of competing with other institutions. The means adopted have perforce included some consideration of the relation of the college to the general public, for the typical college, beset on every hand with competition, must vie with its neighbors for public approval. In consequence, it has adopted devices common to other competitive social and economic enterprises. It has changed the nature of its catalogue. It has employed publicity agents. It has pressed its alumni into service as recruiting officers. It has issued neat and none too modest printed matter to attract students. Its "follow-up" system is often very efficient indeed. And it has deemed itself forced to do these things by a feeling that it must struggle if it is to survive and go forward.

Educational publicity.—Just now we are in the mood to follow the new. Not only do we like to buy a new model of motor car or a new radio; we are attracted by the "new education." In bidding for favor we are streamlining the job—our current models glitter with gadgets that smack of the factory and the salesman. Perhaps a college can gain by adopting sixteen cylinders, hydraulic brakes, and air-flow design. Perhaps so. Or it may be that a college should be organized with multiple tubes and high fidelity loud-speaker. But certainly the college which rests its case on doing something new or adopting some gadget of the moment would do well to consider the long road it must

travel. It might well recognize the fact that the institution must be administered with a view to its whole task—not a temporary task of exploitation or publicity of news releases or reorganization on a current pattern, whatever it may be, but a task to be measured ultimately by the effect of the college upon the student himself. The president of a small college recently said, "We know that we are accepting students who cannot do our work. We know that we are carrying these students forward to graduation. In our present situation we are under such pressure that we feel that we have no other choice. Our campus morale is affected by numbers and a reduction in attendance is looked upon as a slump—as though the institution were losing ground." The general result is constant college competition for students.

Naturally, the question arises what might happen if some colleges were firmly and gradually to reduce their enrollments. A college could assume an entirely different attitude toward its student body if it decided to select five hundred rather than to struggle to recruit two thousand students. The institution could then afford to employ a first-class staff to teach these five hundred students instead of scrimping to get inordinately large classes, handled by low paid Ph.D.'s. Such a college could then give its best efforts to improving its product (the student) rather than the "institution," and devote attention to what really counts in education instead of struggling to modify curricula fast enough to be able to meet the demand, real or imagined, for new courses.

COLLEGE CURRICULA

Liberal arts and practical courses.—The great multiplicity of college courses, with the ever-increasing specialization of departmental offerings, has confused rather than simplified the work and responsibility of many colleges. Frequently colleges have assumed heavy burdens in entering the so-called "practical field."

In many instances not only was the institution ill-fitted for the undertaking but the student's time and attention have been given to ephemeral rather than to continuing values. Only the future can tell the time wasted in the attempt to substitute the detail of liberal arts courses in journalism, salesmanship, education, and the like for a type of education which will assure breadth of information and practice in analyzing the most important trends in the world of fact and fancy. These so-called "practical courses," so frequently based on outmoded or second-hand information, tend toward a narrowness of outlook. As for genuine research in these fields, little has been done. It is small wonder that the results from such courses have proved to be less valuable than had been expected.

There is little in the experience of the past to discourage a college from offering a simple curriculum, if it is manned with intelligence and sincerity. It remains to be seen whether or not the wealth of college equipment will bring dividends commensurate with its cost. Our academic gadgets are known to be expensive; they may not be essential. That the world at large pays a premium for personality is everywhere apparent. The mechanics of curriculum or of equipment seem to have little to do with the development of this most precious of human qualities.

Expansion in the number of courses will be much more difficult in the immediate future than heretofore, except in the direction of synthesizing courses which are taking the place of scrappy offerings that are being dropped. Colleges will find it easier to unify, amplify, and coordinate curricular offerings than they have found it for many years.

The demand of the present is for leadership which can *invest*, soundly and for the public weal, the facilities of the institutions—teaching staff, libraries, laboratories, tradition—in the lives of its serious-minded, confused, but aspiring students.

EXTERNAL CRITERIA VERSUS QUALITY

Standards of classification.—The most important question to ask about a college or university is what happens to a student who is enrolled in the institution. It has become increasingly evident that the prevailing system of inspection and classification, with its emphasis on external features of the school or college, while easy for the inspector, has tended actually to obscure the fact that the chief "unit" of consequence is the performance of the individual student. In practical operation the so-called "Carnegie unit" and other standards of educational classification have become formalized into a more or less mechanical enumeration of descriptive items concerning the educational program, such as length of term, frequency of class exercise, preparation of teachers, and other items supposedly closely associated with educational effectiveness; the actual results in individual education have all too frequently been taken for granted.

The predominant emphasis has been placed on quantitative measures which may have served and probably did serve a useful purpose, but there is now overwhelming evidence that a college may conform to them and still be second-rate. The fact must be recognized that an institution may fail to conform and still be superior as measured by the performance of students. Within a college there is a quality that is of far more importance in determining its value and effectiveness than all the external criteria that may be applied to it. Units of measure to which we are accustomed have been used largely because they were easy to understand and easy to administer. Their supervision called for no high degree of talent.

The defects of external criteria have, however, been recognized and each school or college has been asked to limit and define its field and specific functions. An institution can then be rated

on the success attained in meeting the goal of its own choosing and in understanding the capacities, needs, and outlook of its students in such ways as to contribute to their demand for an "education."

Fragmentation of education.—In the same way there has been a reaction against the breaking up of a college course into a number of attenuated fragments. The administrative system of units of instruction with interchangeable academic credits, commonly accepted during the past three decades, tended to make each course as acceptable as any other for graduation, provided there was an identity of time allotments in the schedules and similarity in the preparation of teachers and in teaching techniques. This led to standardization; bits of knowledge suitable for half a dozen class exercises were expanded to credit proportion by the simple process of duplicating in a slightly different form materials already well taught. The technique of instruction consists of lectures, assigned readings, and specific laboratory or library exercises, with a short examination at the end of the term. After balancing the values between attendance, class performance, completion of assigned work, and the examinations, credits are assigned and recorded. They are then ready to be drawn upon by the student either to count for a diploma or to be used for transfer to another institution. This done, the job is frequently over as far as the student and the instructor are concerned.

Many colleges believe that the current practice is not good enough. Dean Eisenhart of Princeton recently said: "Too long our colleges have conceived it to be their sole function to supply with information, periodically examine him to determine what he had at the time, and if satisfied with the result excuse him from further use of it and then furnish him with a new supply for the next semester." Mr. Frazier, of the Massachusetts Institute of Technology, commenting on this, said: "Ordinarily stu-

dents deal only with problems which are fragments of larger problems, the whole of which they never see. The fragments are handed them carved out and isolated. The examinations usually are relatively brief, and likely to emphasize details . . . only of things which have been 'covered'. The students guide the scope of their study accordingly."

Colleges, having become aware of these problems, have begun to meet them in various ways—by careful selection of students, by replacing fragmentary courses by orientation and comprehensive courses, by the adoption of comprehensive examinations, and by the introduction of honors work—all aimed to encourage the student to become intellectually at home in some field of concentration and to provide him with opportunity to assume a responsible attitude toward the discipline in which he engages. The doctrine of self-education for the student has been accepted by colleges in the belief that genuine achievement is likely to result from simple and arduous expenditure of student energy.

THE COLLEGE FACULTY

Power of the faculty.—In this movement it is recognized everywhere that faculties really have great power. The faculties determine the educational character and policies of the college, specify goals, and regulate processes of education. They not only select and teach the students but recommend for graduation. Faculties carry on research and extend the borders of knowledge. The faculty and the administrative staff for the most part initiate changes in administrative procedures and instructional processes. Of all the factors involved in useful and successful competition between institutions of higher education none is more important than the problem of personnel—the selection and retention of the right members of the institutional staff. This is a matter of distinct public interest. In the struggle toward academic respectability in which many institutions have engaged, much emphasis

has been placed upon external trappings of scholarship that are all too frequently specious. The possession of a doctorate or the multiplication of trivial publications has often tended to blind those who are responsible for selecting, promoting, and making comfortable the teaching staff to the fact that personality is still an indispensable element in an institution's effectiveness. Standardizing associations meant well in their pressure on colleges to increase the number of doctors on their staff. This has resulted all too frequently in an accumulation of colorless, superficial scholars, who were quick to recognize that the likeliest road to promotion lay in the direction of "publication." It is to be hoped that more institutions will recognize that their future is largely dependent upon the skill with which they select, promote, and make happy the right persons on their staff. Life's one institution most whole-heartedly devoted to the development of the individual as a unit in society—the college—can ill afford to permit the mechanics of administration, of promotion, of teaching, or what not, to interfere with the full and free development of high personal quality. The freedom that flourishes where sympathy and respect prevail is a priceless asset to an institution of learning. In the attempt to solve the problem of education intelligently and simply we frequently fail to provide a place in our scheme of things for the teacher who is an artist. Fortunate is the college which has as its central aim the desire to recognize, liberate, and preserve this essential, personal element in its teaching staff.

ADAPTABILITY OF THE COLLEGE

Higher education and the future.—In times like the present the broad social purposes of all institutions are subject to new scrutiny, to new analysis. When priorities are being established and rationing is being imposed, we may well ask, What of Education? Today we raise questions about ends as well as means,

outcomes as well as procedures. Education is being asked to show what it has to offer in times of titanic conflict. Are the colleges helping the individual so that he may better earn a living or that he may better meet his spiritual problems or that he may be better trusted to live in a community? Can the graduate be trusted to accept responsibility in a world with an ever-shortening radius? Can he be depended upon to respond to the needs of his country in pursuing the arts of both war and peace? These questions are being debated everywhere.

During the present war emergency the traditional adaptability of the American college has facilitated the use of college staffs and equipment by government and industry. "Priorities" have now made armed camps of the college. How the colleges will carry on and how they will look when this war is over are not "academic" questions, for this is one time when every element of the college is jolted out of complacency. Just as the colleges now reflect the war effort, they will be swept along tomorrow by the mood and pressure of the time. The very fluidity of the moment may well enable them to adapt themselves to the problems of the morrow with greater ease. The university has dropped its old moorings; for it a new course must be now laid and followed.

UNITED STATES

II

*Higher Education in the Present and
the Post-War Period*

BY

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HIGHER EDUCATION IN THE PRESENT AND THE POST-WAR PERIOD

THE RETREAT FROM REASON

The climate of opinion.—The universities and colleges of America are making important technical contributions to the conduct of the present war, through both research and training. On the other hand, they have failed to show comparable capacity to interpret it, or to suggest means of avoiding repetitions of strife. It is difficult to understand why institutions engaged in the search for truth, its exposition and inculcation, should reveal greater ability to implement destruction than to offer constructive suggestions for preventing world calamity.

So profound a distortion of function can be explained only by some fundamental element of weakness. Although many deficiencies contributed to this critical failure, the most significant was a retreat from reason. That there should be any lack of faith in the primacy of reason in intellectual centers is a paradox. Yet the fact cannot be denied: wisdom was betrayed in its very citadel.

The only possible explanation of this fateful reality is that the universities and colleges had been too deeply influenced by the climate of opinion in which they lived. Though they displayed great vigor in investigation and acquisition of data, they nonetheless lacked perception, imagination, and intuitive insight to alter that environment or even to defy it. Consequently their enormous constructive achievements in the realm of precise scholarship did not develop an adequate sense of direction.

The world at large was in full retreat from reliance upon reason as the primary instrument for the control of man. The recession of faith was so rapid and complete that the rout carried education along in its disorderly sweep.

Force or reason.—Force was one of the substitutes for reason. During the last war the world turned to dependence upon compulsion. Other factors influential in the overthrow of the German military autocracy were too heavily discounted. The employment of force was given entire credit for having destroyed the capacity of the enemy to resist. Yet force failed to turn victory into peace, showing that force can bring a situation into solution but contains no constructive power.

Nonetheless violence was not discredited as an instrument with which to shape a better world. It flared in revolutions in Russia, Italy, and Spain. It was employed by Italy and Japan against Ethiopia and China. Force and the threat of force helped Germany gain hegemony over much of Europe. The cult of violence was part of fascist dogma—and a new war was precipitated. On the surface its course thus far has vindicated the exponents of force who regard it as a more potent instrument than reason. So striking has been its success that a self-proclaimed “have-not” nation bestrides the Western World and another “have-not” nation has conquered a large part of the Eastern world. The transitory nature of such dominance has been overlooked in its tragic impact.

One could wish that only our enemies had rejected reason as the basis of government; all about us, however, are conclusive evidences to the contrary. The cult of force did not leave democracy unscathed. The technique of “pressure groups” became highly developed between the two wars. The “farm bloc,” the “silver bloc,” and others employed the methods of power politics. Their appeal was not to reason or persuasion but to political leverage and compulsion. The imposition of a fixed point of

view by the exercise of strength and will was substituted for the modification and clarification of ideas through the free exchanges of democratic discussion. In domestic, as in international, affairs pressure has appeared to be more effective than reason in the control of policy.

Force was not the only substitute for reason. The second essential of the fascist formula was will power. This emotional quality developed such intensity and employed force so ruthlessly as to sweep all before it.

When the last war was over and men sought peace, reason was the primary requisite. Unhappily it played a secondary role, being mastered by emotion. Desire for revenge overwhelmed the power of reason. "Security" became the slogan in France, "normalcy" in America. Neither was a rational concept; both exhibited spiritual exhaustion. Despite the failure of emotion to achieve peace or security or normalcy, it became a second cornerstone of Fascism. The will to power, proclaimed by a fanatic, led a defeated nation to a position of political supremacy, and put democracy on the defensive—the final evidence that reason was tottering.

Faith in democracy.—Although the political structure of the world was disrupted by the totalitarians, their triumph was achieved not so much by the hammer blows of their armies as by the subtle disintegration of a system established upon reason when a foundation of quixotic but violent impulse was substituted. Faith in the democratic thesis, consistency in applying the democratic process were lacking in a measure adequate to resist this onslaught. It was not intrinsic totalitarian strength nor inherent democratic weakness which accounted for the success of the one and the failure of the other. The difference was in the measure of commitment to a particular method. Totalitarian frenzy was fresh and determined; democratic faith was jaded and doubtful. The essentially rational fabric of the world struc-

ture and its new emotional foundation were not adapted to each other; collapse became inevitable.

Pessimism followed defeat. Peace was lost, and with it security; prosperity was lost, and with it confidence. The depression expanded beyond the bounds of an economic phenomenon; its political repercussions were profound. Minds undisciplined by history and dependent upon contemporary statistics felt that democracy had not only failed to solve the problems of distribution or unemployment, but lacked the capacity to do so. They saw nations which set will above reason, force above peace, conquer unemployment by mobilization and armaments production. The moral failure of the totalitarians was concealed by attention to their feverish material activity. Democracies seemed envious of the superficial success rather than observant of the more significant but intangible failure.

Statistics or ideas.—The degree to which reason was discredited is revealed in one of the manifestations of our time: faith in trends as revealing the future. This phenomenon is intimately tied with another current dogma—namely, that the modern world is so complicated as to defeat the human mind. It is obvious that when faith in reason is weakened, the integrating factor in comprehension has been destroyed. Yet, even in the midst of such intellectual defeatism, there remains a realization that something must bring data into order and coherence. A scatter chart with a curve to delineate its dominant statistical characteristics is such a device. Its construction is essentially mechanical and its naïve interpretation obvious. Confusion is reduced to clarity, complexity to simplicity, and all without agony of mind. Used in that superficial way, it is the reverse of the triumph of mind over matter; it is the victory of mechanism over reason.

That such employment was grossly superficial is evidenced by the fact that it neglected the essential quality of such curves. The

statistical expression of natural phenomena shows more than anything else their cyclical nature; it is normal for a curve to alter its direction. Indeed that is the reason for employing the term. In borrowing a scientific tool, therefore, its dominant trait was neglected.

Only under the influence of this fatal error could men have acted as though a trend, once identified, foretold the future with unfailing accuracy. The business world of the twenties founded faith in a new era of perpetual prosperity upon a rising curve of security prices and the wholly irrational assumption that the trend was irreversible. Politicians vied with business men in devotion to this fallacy, and began to speak of a chicken in every pot and a car in every garage—in short, the imminent conquest of poverty.

Irrationally, the collapse of the boom did not weaken faith in the infallibility of a statistical projection. No better evidence could be offered that reason and its implements were abandoned for a statistical gadget, useful within the limits of its validity, but incredible as a substitute for common sense. Yet, during the depression, the falling curve was accepted as blindly as the rising arc had lately been. Political leaders accepted the trend as definitive, and asserted that our industrial plant was overbuilt and never again would be used to full capacity. The crescendo of unemployment was regarded as both inevitable and continuous. The director of the National Youth Administration proclaimed: "The supply of workers exceeds the demand. Manpower is a drug on the market. The productive forces of the country are glutted with brains and brawn which they cannot use." Such short-sighted predictions could rest only upon unreasoning submission to short-range statistics. In the light of the manpower problem today their desperate inaccuracy becomes clear. Graphs and charts could know nothing of war; but any sentient being in a position of governmental responsibility should have been

able to read the signs of the times, which were surely ominous enough.

Political trends enjoyed unreasonable influence over judgments of the future. There was a world-wide drift toward centralization of government and growth of bureaucratic power. It was paced by the totalitarians but aped by the democracies. Because it was a trend, it was regarded as both irresistible and irreversible. We were headed for totalitarianism by the extrapolation of a curve—a strictly modern form of predestination. It was held as proved that centralization was the inescapable end of man, that the state was the inevitable receiver in bankruptcy of impotent individualism. Historical evidence that such trends had appeared and disappeared before was brushed aside as irrelevant; we were living in a “new” world—a “new order” or, in the American argot, a “new deal.” An irrational dogma of historical discontinuity severed the future from the past. Belief in the infallibility of trends shackled the future to the present “for a thousand years.” Except for its tragic consequences such an infantile conclusion need not be seriously regarded. However, implicit faith in the authority of the trend weakened resistance and short-circuited countervailing forces.

Economic determinism.—The combination of the retreat from reason and the drift to statism accompanied an accent upon material welfare which amounted to economic determinism. An expanding economy never doubted men could be fed; plenty was multiplying; material values were taken for granted. Historically people have been willing to forego comfort, convenience, good food, and clothing to achieve liberty. But the new mood held liberty meaningless to those ill-clothed, ill-housed, and ill-fed. So guarantees were demanded and “social security” was offered. This was merely the promise of the state to supply certain material needs of its citizens; it was wholly inadequate to fulfill the implications of its pretentious name. Thrift, courage, industry—

all the intangible and internal qualities of the individual—were discounted. A new theory of “over-saving” was propounded; ancient virtue became contemporary vice.

The program neglected nearly all the factors making for social integration; in essence it was not “social” at all, because the state has no power to distribute any but material benefits. Genuine “social” security could come from such a process only on the fantastic theory that clothing, shelter, and food are the main factors in social integration—that man lives by bread alone. That is economic determinism in one of its crudest forms, and ultimately disastrous to freedom. Looking to the state either for bread or for circuses has always involved the sacrifice of liberty; in this respect modern experience does not deviate from that of the past. Transfer of emphasis to materialistic goals led to social disintegration, to class consciousness, to separatist group interests each reaching for a larger share. To call such a situation “social security” is to defy rational definition.

Fear of generalization.—Many aspects of life cannot be reflected in a graph; they do not yield to statistical treatment nor reveal a trend. Under the retreat from reason their elements could only be catalogued. One of the highest functions of reason is the capacity for generalization, the ability to take disparate elements and reduce them to some concept which is meaningful, precise, and powerful. Ability to generalize having been discounted, however, it was necessary to particularize. It is not surprising, therefore, that this became an age of specifics and particularities. The reversal of the normal process is revealed in a thousand ways. Two familiar illustrations will suffice.

One is to be found in the efforts to state the objectives of the war. Never have democracies been so inarticulate. There has been nothing comparable to the Declaration of Independence or the Second Inaugural. No inspiring concept has found expression. It is not, for example, a war to vindicate freedom. That

appears to be too large a generalization adequately to move an age skeptical of reason. So it is described as a war for four freedoms or for seven freedoms; it is thought necessary to catalogue and specify, to make a list.

Another illustration is to be found in the hesitant and apologetic way men speak of democracy. Like liberty, democracy is a profound generalization of the human mind. That being out of fashion, since reason was in disrepute, it was necessary to break down the great idea and catalog its manifestations as political democracy, economic democracy, or social democracy, robbing the concept of its universality. Discounting its character as an ideal viable within many environments reduces it to the status of a tool.

When one summarizes this climate of opinion within which the universities and colleges have functioned, it becomes evident that two supporting pillars of the democratic thesis have been shaken to their very foundations. They are the control of action by reason and the individual as the focal point of all values.

Nothing is clearer than the dependence of democracy upon faith in reason. Justice Oliver Wendell Holmes expressed its central thesis: "The best test of truth is the power of the thought to get itself accepted in the competition of the market"; men are fundamentally so rational that they will choose the better rather than the worse reasoning. Failure to hold fast to that belief is precisely the cause of present-day weakness in the democratic position.

Once there are doubts about the primacy of reason, there will be parallel doubts about the infinite worth of the individual. If he is not governed by reason, he cannot be trusted to look out for himself. He then needs external discipline to keep him in order and security to keep him from starving. That is why we have heard so much about the planned economy and the planned society. That is why "rugged individualism" has become a

phrase of mockery. Men have spoken of the individual, who must be the support of the democratic system, in terms of pity. Sentimental humanitarianism destroys the democratic thesis, for it thinks of freedom as not worth while to a hungry man and liberty as meaningless to the poorly clothed. None of the great ideals which must supply the dynamic to win the war has meaning when degraded to such sterile terms.

UNIVERSITIES AND COLLEGES

Characteristics of the age.—The universities and colleges reveal the characteristics of the age: the dominance of organization and authority, materialism and economic determinism, particularism and statistics; dependence on devices and procedures; loss of faith in the individual and his capacity for self-direction; preoccupation with guidance and placement instead of emphasis on self-respect. They reflect the retreat from reason. The most serious weaknesses of higher education, therefore, have come from yielding to the mood of our time. Institutions always tend to do so; the tendency is accentuated and the pace accelerated when they lack moral vitality.

In terms of organization and authoritative structure, the scholarly world has gained. Centralized administration and imposing physical presence give an appearance of cohesion and power though the real integrating factor, a coherent educational philosophy, is lacking. Procedures have been so carefully refined that they all but conceal the lack of a genuine corporate spirit. Colleges and universities have more students, more money, larger and better buildings, more books in their libraries, more elaborate scientific equipment. Thus by statistical demonstration institutions of higher education are stronger and better than ever. Only when one asks the question, "Stronger for what?" is their essential weakness revealed.

Absence of a vigorous corporate spirit has yielded leadership

to administration. While the technical preparation of faculty members has increased through training, research, and experience, their competence as a corporate group has decreased. Technical facility too often appears in inverse ratio to philosophic grasp. With a decline in the capacity of departments to work together, much less think together, fewer and fewer questions relating to the general policy of the institution have been referred to the faculty. More and more such problems fell into the hands of committees who proceeded by taking the average of opinions advanced by uninterested persons upon subjects which they did not trouble to understand. Committees came to be dominated by administrative officers, whose policy was controlled by fiscal considerations. Instead of causing a revolt, the development often produced a sense of relief amounting to satisfaction with irresponsibility. It may fairly be said that instruction is now influenced more profoundly by the budget office than by the curriculum committee. The budget officer has not only a position of power and authority, but often a clean-cut policy. Whether or not it is educational is too seldom asked.

Pressures.—Environmental pressures appear not only in the structure of universities and colleges; the curriculum likewise reflects the economic determinism of the age. Often the program looks to the economic well-being, not to moral impulse, yet continues to be called "liberal," just as political liberalism became materialistic. The question asked the student is not what kind of person he wishes to be, but what he wishes to do. Training—specific preparation for a special task—is accentuated over education—the enlightenment which informs every effort.

The founders of our Republic did not hesitate to identify the development of the free man with spiritual maturity and intellectual power. The modern emphasis has changed. Cultural topics have been twisted to provide vocational appeal. The several disciplines have been deflected in their applications so that

procedures and techniques have come to the fore. "In God We Trust" remains upon our coinage, but scarcely a trace of that attitude appears in education. Vocational training, scientific skill, agricultural competence, technical capacity, business practice, home economics or domestic science—these are more prominent. In its proper sphere, none of them is open to criticism; taken together they are a totally inadequate expression of the liberal intellectual ideal. None is concerned with the essential quality of democracy or with the spiritual crisis of the contemporary world. The disappearance of a universal interest in those vital matters lies at the heart of our present difficulties.

Economic determinism and false scientism, with their attendant amoral objectivity, combined to shift the American college toward the German tradition of irresponsibility touching student morals. There was little effort to maintain the Anglo-American tradition which regarded character as the principal by-product of the educational process. This change has a profound relevance to the current situation. The crisis of our time is moral: we won a war and lost the peace. That failure was due not to lack of information or data but to want of moral insight, spiritual stamina, and faith in reason. Yet in the face of the moral disintegration of the world, with its violation of treaties, abuse of populations, racial discriminations, and dozens of other evidences of moral degeneracy, higher education has clung to an amoral detachment. It eschews moral commitment in favor of "scientific" objectivity.

Specialization.—Not only was the concept of the separation of intellectual life from moral life characteristically German; so were the specialism and accent upon specificities. The great research impulse which established the American program of graduate instruction was German. Fifty years ago the leading scholars of America had nearly all received training in Germany. Though the disastrous moral sterility of the German ideal was

exposed in the last war, during the past twenty years the effort has been further to copy the German pattern. Having repelled its political manifestations, we continued to emulate it educationally. Substitutes for our characteristic four-year college of liberal arts were modelled upon the *Gymnasium*, the basic philosophy of which is wholly different from any American ideal. The distinctive American institution, which reflected a native development, was subjected to violent attack, and always upon the explicit or implied suggestion that the German model should be followed. The only valid argument was that the last two years of the college had already lost their liberal flavor, having been assigned to specialized or professional—i.e., “university”—training, leaving the first two in an anomalous position.

THE DISCIPLINES

Political studies.—The corrosive elements which impaired the philosophic and moral fabric of the educational institutions appear more clearly as one examines the state of the several humane disciplines. There the retreat from reason is pathetically obvious.

This being a political age, with the power and position of the state rising in importance, it might well be supposed that political studies would flourish. In volume they have done so. Yet, looking back over the period since the last war, it is difficult to think of many distinctive contributions to political theory, either in writing or in instruction. American colleges frequently offered no instruction in political theory; their courses were drearily factual surveys of current practice, substantially without incisive criticism or constructive suggestion. There was little freshness of concept or clarity of perception in the field of creative thought, nor were there significant expository insights in interpreting experience.

In the broad field of political studies the main characteristics

were description and statistical analysis. Instead of reasoned argument, comment was limited largely to describing a political drift. Psychological foundations, philosophical structure, spiritual content were seriously neglected. Yet when a study of the relationship between political information and the impulse to use it wisely was made in one of the states, wonder was expressed that the correlation was so low.

Economic determinism, which tended strongly to dominate political thought, made discussions of liberty sterile. As already noted, in defiance of history and reason it became a trite phrase that freedom could not mean much to a hungry man.

Like other scholars, students of politics were awed by the success of the sciences and sought to be scientific, forgetting Aristotle's dictum that man is a political animal. It should have been remembered that objectivity and politics are antithetical. The German "science" of *Geopolitik* gained currency, with its reduction of the fluid forces of history—such as ideas, personalities, moral impulses, religious zeal—to relative impotence. Amoral objectivity could not go much further! Fixed elements, like geography and climate, were assigned dominant roles. Nothing could illustrate more clearly the rational weakness of the contemporary attitude. The twentieth century has done more than all its predecessors physically to conquer space and time, and the most potent factor in that accomplishment was imagination guided and harnessed by reason. Yet assigning the fixed elements a controlling position was not only to discount but to neglect their conqueror. It was, in a sense, the final triumph of materialism when the physical features of geography were accorded a predominant influence over national and international policy.

The constructive exercise of reason in the political field has come to its nadir in some proposals for a post-war world. There has never been so much preoccupation with institutional pattern,

never so much assignment of powers and responsibilities to unformed agencies without the slightest consideration how such agencies are to be established politically, how nations can be induced to make such commitments, or upon what theoretical and philosophic foundation beyond sheer materialism they may operate. This concentration upon administrative detail and mechanical structure has resulted in drawing blue prints for the realization of which the critical materials are not available; nor are the functional objectives of the structure, if it could be built, defined. When many of the plans are analyzed, it transpires that there is no basis for their viability save force, and this in defiance of the experience of mankind which has proved force too transient and unstable for political reliance. "Post-war planning" has become, for many, a form of escapism similar to the detective story—exciting and diverting, but implausible.

Social studies.—The social studies have shown the same fundamental characteristics as the political. Sociology was no longer attached primarily to economics or to anthropology; it became essentially descriptive and statistical in character. Little was added in the way of social philosophy except at the materialistic level. Its accent was heavily upon food, clothing, and shelter as the measures of human life rather than upon human dignity as the essence of life itself.

Sociology reflected the general attitude of sentimental humanitarianism rather than a rational humanism. Growing sensitiveness to the wastes of disease and of poverty is in itself desirable, but it becomes tainted with pity rather than ennobled with courage. Problems were too often approached negatively instead of positively. The dignity of man does not exclude sympathy, a humane characteristic, but it does not thrive on pity.

Economics abandoned the term "political economy" just as its dominantly political character became obvious. It sought to be scientific just when it was prostituted to politics. Every great eco-

nomie issue was essentially political, and action consisted in attempts politically to manipulate forces inadequately understood. In short, economics tended to become an apology for political bread and circuses rather than a rational discipline. It was reduced to technical defense of political escapism, as revealed in deficit finance, the maintenance of uneconomic trade barriers, support of pressure groups, and "relief" made necessary by political obstacles to production upon a scale which could provide employment. Like political science, its accent was upon techniques and devices rather than upon ends and rational means of securing them.

At its worst economics turned to business administration and became absorbed with tricks and procedures. The sense of a rigorous intellectual discipline gave way to training in skills and techniques.

History fared little better. Some historians, taking their cue from science, turned to a completely "objective" phenomenalism in which, with elaborate and almost painfully precise scientific techniques, events and developments were discussed as if they did not matter. Data were treated as the desiderata, whereas understanding was the desperate need. Philosophic history was outlawed and history as a discipline eventuating in wise estimates of current situations seen through the perspective of their development was out of fashion. Such discipline is essential, for facts by themselves tell nothing. Meaning depends upon the pattern in which those facts are arranged—and that process should be boldly rational. Only so can historical interpretation have any stability.

Instead, when not strictly "objective," history has too frequently been essentially emotional. The disillusionment of the times led to much hero-smashing, debunking, and cynical discussion. At its worst emotionalism tended to debase history into propaganda. Thus the last war has been interpreted successively

as a war to make the world safe for democracy, then as a war to make profits for the munitions makers or to pull British chestnuts out of the fire under the pressure of propagandists, and now again more nearly in the original terms. Without a fundamental philosophic orientation, without a firm emphasis upon reason over emotion, historical interpretation was unstable.

Economic determinism affected history profoundly. The record showed that famine was conquered, clothing better and cheaper than ever before, houses warmer in winter, cooler in summer, more convenient and better equipped than at any previous time. Social conscience and technology had combined to supply goods and services and make them available to the common man upon a scale never before known—material and social and recreational facilities like the motor car and the radio, the electric refrigerator and the vacuum sweeper, electric light and power, running water and plumbing, central heating, parks and playgrounds. By its own materialistic tests there had been the substance of progress, yet faith in progress was dead. Having set up materialistic criteria, and having shown cumulative attainment, recent historical interpretation discounted that achievement.

Furthermore, a great deal of American history of a very influential kind has been taught during the last ten or twelve years quite outside institutions of learning. It has consisted of the steady insistence by political leaders that American history is a record of failure because there are still persons ill-housed, ill-clothed, and ill-fed. Defeatism in the interpretation of American history has been an exceedingly pervasive influence which universities and colleges have done little to counteract.

Thus the humane aspects of one of the oldest disciplines tended to be lost in a false and amoral scientism, in emotional quixotism, or in economic determinism. So history became feeble. Though our age has seen the largest outpouring of his-

torical scholarship, it has nonetheless assumed that tradition is a shackle rather than a guide. If a practice was to be denounced, the characteristic reproach was to assert that it was rooted in the past. Human experience, which it is the business of history to interpret, was written off because of the negative emphasis of recent historians and the sterility which comes from straining for objectivity where, as in human affairs, it is irrelevant—or worse.

Literature.—Literature likewise suffered acutely from a type of scholarship which sought objective and pseudo-scientific attainments at the expense of human values. It was dissected, analyzed, and often completely sterilized in the process. The science of linguistics flourished; the appreciation of literature languished. The great intuitive insights which had been found in poetry, through seizing upon great emotional truths and expressing them directly and without mediatory techniques, were heavily discounted. Interest in and appreciation of classical literature were at a low ebb. Scholarship accumulated much new data about the ancient world, but instruction in the classics continued to wither. Requirements touching modern languages were reduced to a "reading knowledge," and from two languages to one—or none. "Reading knowledge" became a technical phrase requiring quotation marks because it was fully understood that it carried no warranty, express or implied, that the student ever had or ever would read any worth-while foreign author.

Philosophy.—Philosophy was perhaps the most important humanistic casualty between the wars. Its central contribution to the history of mankind has been the rational elaboration of a scale of values. Throughout the ages many such values have been intuitively perceived by poets and painters, seers and prophets, but they found orderly and reasoned exposition through the minds of philosophers. In that sense it was the most humane of all studies.

Philosophy fell victim, however, to the current disillusion and scientism; it developed amazing facility; at the same time the structure of its ideas had less and less to do with values and more and more dependence upon formal patterns rather than human significances. It achieved great technical proficiency in the manipulation of concepts while falling into humane sterility. Just as complicated patterns of dissonance characterized music, decrying melody as sentimental and harmony as trite, so the structures of logical positivism were elaborate but humanistically feeble. Like modern art, which eschewed beauty, philosophy was fearful of values. Each came to feel that modernity required revolt from historical function.

In short, all the humane studies suffered acutely from the disillusionment occasioned by wasting the fruits of World War I; by the reaction from the moral elevation which had sustained people through the agony of that crisis; by the cynicism which sought escape from the ensuing failure in activities, in gadgets, in food and clothing; and by scientific objectivity. Essentially it was a revolt against reason.

Science and mathematics.—Even pure science, strangely enough, contributed to this loss of faith in reason, and under circumstances which, but for the climate of opinion, would have prevented such a result. Mathematics, in its theoretical aspects the epitome of reason, made great strides. Though instruction at the college level was singularly undistinguished, so great is the intricate appeal of the discipline that it attracted able men, and America took a leading place in pure mathematics.

The nineteenth and twentieth centuries had seen in science more than anywhere else a vast accumulation of data. Here if anywhere the mass of material should be confusing. Yet by a brilliant effort of the imagination, coordinated by reason, coherent expressions of truth were achieved. The developments in theoretical physics, for which the name of Einstein is the popular

symbol though by no means the scholarly summary, represented triumphs of the reasoning process that rivalled anything in history. They might well have been regarded as the complete vindication of pure reason. However, that aspect of scientific advance, though both fundamental and revolutionary, was overshadowed by the experimental and statistical attempts at objective confirmation of the enormous achievements of reason. The laboratory search for objective data which accorded with this intellectual achievement, but which was upon a vastly lower level, absorbed attention. Thus the laggard support of reason by the non-rational processes held the spotlight in scientific progress!

Psychology.—Psychology finally broke its tie with philosophy, abandoned its old definition of the science of the mind as such, and entered upon a new phase, committing itself to experimentalism, analysis, and statistics as its methods.

Broadly speaking, it had two great developments, neither of which was helpful to the humanistic outlook. The first was behaviorism with its emphasis upon controlled stimulus and conditioned response. In its more extravagant phases it tended to regard the conditioned reflex as a technique of universal validity. Some sought to interpret man as a machine, and his mind as a "neural switchboard." As Frederick Kuhlmann said: "The goal of the behaviorist is an entirely objective science of stimulus and reaction. . . . He professed to get along quite as well without even admitting that any mind existed at all." That point of view obviously did not lay emphasis upon the power of reason.

The second great development was psychoanalysis with its dreary catalogue of repressions, inhibitions, and frustrations. This psychological system was not likely to convince man that he was only a little lower than the angels, but rather only a little higher than the beasts, and that his reason was the least of his governing factors. The emphasis was upon drives, many of them

unconscious and several of them unworthy, which were regarded as more fundamental than reason. It is little wonder that a historian, seeking to make the American tradition attractive, spoke of it as "the American dream." Psychoanalysis had made dreams a reflection of the substance of our drives; only in such terms could a tradition seem appealing to contemporaries.

THE DIGNITY OF THE INDIVIDUAL

Discipline of the mind.—Faith in the control of action by reason being impaired, discipline of the mind falls into disrepute. It was not surprising, therefore, that educational psychology turned with fury upon the concept of the formal discipline, and, having overthrown that, lost the concept of discipline as a vital matter. It followed the crowd to the statistical shrine and worshipped measurement. It measured intelligence and then, doubting there was such a reality, apologetically retreated from the term, but continued to measure. It measured information, it measured vocational interest, it measured a whole series of specific characteristics by means of "personality inventories," aptitude tests, vocational interest tests, and a hundred other efforts to reduce human personality to statistical terms. Introspection became "objective" by mathematical magic. Attendance at educational gatherings in the last twenty years would have informed one vastly more about coefficients of correlation, regression equations, and sigma scales than about the infinite worth of the individual. Of course these statistical procedures are useful, but they are no "measures" of men. They have been taken too literally and vastly too seriously. At best they tend to regard the yardstick as superior to the mind that devised it.

In all this frantic measurement it was obvious that human judgment was not highly regarded. To damn an opinion regarding a student or his attainment it was necessary only to announce that it was subjective, as though the very epithet made judgment

incorrect. This attitude was "validated" statistically. With complete irrationality things which could be measured were treated with more respect than those which were too subtle for measurement. Naturally enough, no one set out to calibrate wisdom, which is the fruit of reason subjected to discipline and matured in character. It is doubtful that the existence of wisdom was admitted.

In this analysis of the individual student—as though he could be expressed by a formula—there is a subtle, and no less profound because insensible, assault upon human dignity. The very phrase "personality inventory" is a shocking simile, terrifying in its crudity and insufficiency.

Naturally, analysis having gone so far, character had to be reduced to its components. Studies showed that behavior, for example, did not follow an integral character pattern, but that ethical actions were themselves specific. Statistical evidence was adduced that lying and cheating and stealing were not necessarily associated, but that each was a specific character trait. Instead of raising doubts as to the adequacy of the techniques employed as reason and experience demanded, the sketchy data were accepted as conclusive. So character itself was regarded as only an agglomeration of responses to situations containing specific ethical elements—further proof that man was a great deal lower than the angels!

All these efforts to express the individual by digits, all the consequent efforts to "adjust" him as though he were a nut on a machine, belong together as expressions of doubt as to his capacity to grow and adapt himself to altered circumstances, much less master them. Instead of putting faith in developing the mind, secure in the belief that right reason would prevail, education emphasized "conditioning" youth. Once doubt as to the supremacy of reason crept in, it was "scientifically" discovered that training the mind was a specific, not a general, matter. This doubt

was expressed concretely in emphasis on training—the learning of a series of skills appropriate to particular circumstances. Reason being overthrown as a coherent directing power, everything must be learned specifically, and, in the more extravagant phases, must be learned directly. Such a concept of education is self-defeating. No wonder a recent national survey could find no central core in the American educational process.

The place of knowledge.—Knowledge was reduced to the level of a tool, though the end for which that tool would be employed could not be described except upon a crassly material level. Since each thing had to be learned specifically and since it was important to know everything, everything must be taught. So the modern curriculum became more and more complicated but the work easier and easier. Since in the new age everything was specialized and technicalized, everything was of practically equal value. As long as you could expertize, it made little difference what your field of expertism! Since all subjects were equal, one was no more “intellectual” than another; those which had been intellectual were damned as cultural, and therefore mere decoration.

The effect upon instruction was a plague of data-bound courses. On the assumption that a student could not be effective until he knew all the facts, the facts were accented instead of their intellectual manipulation and their rearrangement into concept patterns of validity and wisdom. Though memory was damned, the subject matter was informational; discipline being discounted, the power to generalize being short-circuited, the results all too often were sterile.

When it finally became obvious that subject matter had been broken into such small sections that the students could not get a reasonable introduction into any phase of intellectual endeavor, frantic efforts were made to correlate—significantly a statistical term. But the process was upon the level of information rather

than discipline, knowledge rather than reason, and with a view to facts rather than wisdom. So the correlating survey course could not be entrusted to one member of the faculty because he did not know enough! A series of lecturers followed one another across the platform, mystifying and confusing the students with the recondite or boring them with the obvious.

Vocational adjustments.—From a humane point of view all this reflects an insufficient emphasis upon the dignity of the human intellect, an inadequate awareness of the strength of human character, an unhappy blindness to the quality of human wisdom. Students were regarded as having too limited capacities. Measures of aptitude, and particularly of vocational aptitude, tended to channel them and give them a sense that they were vastly better at one thing than another. Those attitudes proved bad for morale as war approached. Public doubts were expressed whether youth could be trusted to respond. Those doubts have been shown to be misplaced, for human response is stronger than the fixations of placement techniques, and character is stronger than statistical shackles.

The war should teach that lesson. The predictability of careers, the insistence upon the desirability of stability in careers, the goal of security of vocation are sheer nonsense. Twice within our day men have been called from the desk to the armed forces, from business to combat. It is the most violent transition that can be imagined. It came this time just when education was looking upon vocation as a final choice and the ideal employment as static and secure. Education had been predicated upon the predictable. The war exposes the shoddy quality of that pattern. There is nothing in war of security or vocational fixation; defeat is certain if men cannot accept hazards and make rapid adjustments to new circumstances. Men reveal enormous capacity for reorienting life, thought, and work. It is tragic that so fundamental a revelation should wait on strife. The continu-

ous need for reorientation intimates and illustrates the necessity for education dedicated to fluid power, to capacity for changing from one occupation to another. Education again must lay its emphasis upon adulthood and maturity as ends adequate in themselves.

THE FUTURE

Education and moral values.—So much for the last twenty years; what of post-war education? Unhappily some of the silliest things being said today have to do with the effects of the war on education. Characteristic of the contempt for perspective in the modern world, most current thinking simply projects the war into the future for an indefinite period. A demand is made to "adjust" education to the war. Usually that "adjustment" is to abandon all long-run objectives and concentrate on specific "knowledges" and "skills." The new pattern is then assumed to be permanent—as though the war were going to last forever. Those who make such demands seem to expect that we will remain fully armed despite the President's statement that one of the essential objectives is liberation from armament. A similar assumption appears in the insistence that what is most needed is technical capacity, despite the fact that it had no vital contribution to make toward preventing the war and can suggest no way to maintain peace.

Education is a long-run enterprise. We ought, therefore, to look to the need to prevent war from being perpetual. Education, consequently, should be looking not only at what the war will require immediately, but at what caused the war. Among the causes were the retreat from reason to power politics, the concentration of authority in the state, short-sightedness in political outlook, the abandonment of humanism and the humane point of view, moral degeneracy, the misuse of the gifts of technology for destruction instead of enrichment. In fact, the war

was occasioned by the neglect of the qualities which liberal education inculcates.

Education should seek to remove the causes of war. It ought, therefore, to take such steps as will develop the human qualities which may prevent war. Obviously education has little contribution to make to force beyond supplying the will to power with new engines. But it can develop the qualities which have been so sadly neglected in order to encourage political responsibility and peace in the future.

If we are not to surrender to war as the normal condition of life, we must determine upon a direction—alter the direction of recent trends. If we simply let current events dictate what we do, we shall be blown about by every wind of doctrine, as education has been for the last twenty years.

Hope of reform rests in recovery of faith in the supremacy of reason. Then we shall have education that aims to discipline the mind. It will seek mental power rather than concentrate upon efforts at specific "conditioning" for each separate function. This reform is essential if we want effectively to "train for citizenship." Nothing has been talked about more, and no educational program has been so dismal a failure.

Twice within the experience of the present generation hopes of peace have been dashed. Much as we abominate war, it is so clearly a reflection of human weaknesses and shortcomings, so much the product of confusion and fear, that even those who have the deepest and most active faith in the power to change mankind must realize that those changes can be neither sudden nor complete. Education cannot again tolerate the escapist explanation of the twenties which loaded responsibility for World War I upon small groups, nor can it indulge the belief that legislation and mechanisms offer hope of security.

If we are to have peace, there must be a renewed emphasis upon those moral values, those elements of good faith, those

principles of law as the institutional reflection of the good sense of mankind which have been held so cheaply in the last decades. This involves a return to the humanistic studies as genuinely humane disciplines. Technical scholars may continue to apply some scientific techniques to a few aspects of those disciplines which may be objectively, phenomenally, or statistically studied. But teaching emphasis should be upon the inculcation of the methods of value judgment which experience has shown to be most appropriate. To insist upon an amoral approach to the social sciences—in fact, to think of them as sciences at all instead of as social studies—and to advocate an objective and impersonal judgment of humanistic values is to retard that alteration of man's behavior pattern and to invite again the ultimate disaster of war.

The task ahead.—The task of education in English-speaking nations is to rehumanize it. War creates a difficult environment since it is both inhuman and inhumane. Its brutality is heightened because stupid men think the only way people can win is to stimulate them to hate and anger, knowing nothing of righteous wrath. Having discounted experience, they hesitate to speak of vindicating a great ideal or preserving a great tradition. At best there is a heavy accent upon the cheapness of human life and its expendable characteristics; in the heat of war casualties are recorded as statistics rather than as a vast human tragedy. Inevitably men are regimented and subjected to discipline from the outside, to order and command. The whole environment is hostile to the humanistic concept of the infinite value of the individual. If education simply follows that trend, it abdicates its function.

The post-war planners talk *ad nauseam* about how we are to restore our markets, how we are to regain our possessions, how we are to rebuild our cities, but there has been painfully little about recovering a sense of the infinite worth of man, or

catching a glimmer of his divine characteristics. More than all else, education must defy current trends and insist upon the richness of personality.

Engineering and technology receive a powerful impulse from war; from sheer momentum some of this impulse will survive for a time. But everything humane, everything that looks to man as man, tends to be discounted by the suicidal fury of the strife. At this point the fresh approach must be made. The moment has come for a counter-revolution, for a recovery of the lost bastions of the mind, for a restoration of faith in reason, for a humane explanation of courage as something more than adrenalin! Now is the time to restore the ideal of education, which Thomas Mann calls "an optimistic and humane concept." It must be emphasized over all those trainings in specific skills and specialties that have characterized a defeatist and defeated era.

UNITED STATES

III

Higher Education in Time of Total War

BY

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HIGHER EDUCATION IN TIME OF TOTAL WAR¹

The primary problem.—“How can I make my greatest possible contribution to the winning of the war?” That, in the autumn of 1942, is the primary problem for every citizen of any one of the United Nations, and for every free institution in any one of the United Nations. All other problems are secondary to this first problem; and the difference in scale between the primary problem and the most urgent secondary problems is as the difference between a mountain peak and its minor foothills. For if we win the war, there will lie before us still a way of life; but if we lose the war, there will lie before us only a way of death.

All this is eminently true for the American college. What has happened to the universities of Poland and of Czechoslovakia and of Eastern China is a matter of record. If Axis conquest should sweep over us also, our colleges and universities would undergo the extermination of their present and their potential leadership; many would be destroyed, before or after the confiscation of their movable equipment; and those that might remain would be converted into plants utilized in some evil way to ensnare and to perpetuate the control of the master race. The function of the American college, furthermore, has been the service of that free American society which created and has maintained it; if that free American society disappears, the American college has no further function.

The primary college problem of 1942 is then clearly and simply this: “How can the American college make its greatest possible contribution to the winning of the war?”

¹ Written in September, 1942.

The following seven propositions may fairly be regarded as pointing the way to the main answers to that question:

a. This is a total war; and it will call therefore for military participation, sooner or later, by most college men, and for the more or less direct auxiliary effort of practically all other college students, whether men or women.

b. This is a modern war; and it calls therefore for an unprecedented extent and variety of medical and other scientific expertness.

c. This is a fearfully hard war; and it calls therefore for leadership of the utmost resourcefulness and inventiveness.

d. It will be, in all probability, a long war.

e. Every single individual should be so used as to make his greatest possible contribution to the winning of the war—a contribution, that is, which will utilize to the full his individual abilities and his special training.

f. College is absolutely indispensable for pre-medical students, and almost equally indispensable for the development of notable scientific expertness in other fields.

g. College is a place admirably qualified to develop potentially resourceful and inventive leadership.

A basic war-time program.—An ideal basic war-time program, based on the foregoing propositions, might well contain the following five elements:

1. All high-school graduates who manifest clear possibilities of medical or other scientific expertness or of resourceful and inventive leadership should be entered in some type of college—even if they are unable to pay the ordinary fees. This means the utmost possible reduction of costs by the colleges, together with extensive provision of scholarships, chiefly through government subsidization.

2. In so far as college facilities are limited, admission should be granted only to students who manifest such clear possibi-

ties; and no student should be retained in college whose work does not continuously prove his possession and his development of these possibilities.

3. The college should remain in session continuously, except for the provision of brief vacation periods allowed for the sake of the maintenance of mental fitness (perhaps four periods in the year, of about a week each), thus making possible the completion of the whole college course in three years or somewhat less.

4. The college should provide such courses, regular or special, and such general opportunities, regular or special, as will tend most fully to develop the student's possibilities.

5. The college should if necessary modify its normal requirements in order to permit a greater concentration of work in the scientific field, or in some other field, in cases in which such concentration may seem desirable.

The last three elements of this program—3, 4, and 5—call for some special comment:

As to element 3, three types of all-year-round programs are in operation: the Quarter System, the Three-Term System, and the Two-Semester-plus-Summer-School System. Institutions already having the Quarter System will undoubtedly hold to it; they might well consider, however, the extension of the actual teaching time in each quarter, savings in time being made by shortening examination periods and vacation periods. The Three-Term System provides three terms of sixteen weeks each, and allows for a total of four vacation weeks—which can be so distributed, for instance, as to allow a week at Christmas, a week at or about Easter, and a week before and after the Summer Term. The sixteen-week period seems to many teachers to provide a very satisfactory course-length; and the year is just long enough to allow three such terms (with vacation leeway as indicated). On this basis a complete college course can be covered in two years and eight months. The difficulty with the Two-Semester-

plus-Summer-School System lies in the fact that the course-length in a Summer School is different from and shorter than the course-length which obtains in the rest of the year. This is unfortunate in that the work can hardly be of full standard efficiency and does not permit of a really complete college course in a time as short as two years and eight months.

As to element 4, many regular college courses are of basic military value. Such are practically all courses in mathematics, physics, chemistry, and geography; many courses in other natural sciences; most courses in physical education; the most advanced language courses; and certain other courses in widely varied fields, as, for instance, accounting and personnel procedures. In some of these courses the use of military material or the introduction of problems related to military activities may be appropriate. The attention of students should be drawn to the special values of these regular courses. To these may well be added—in institutions which do not already offer them—courses such as the following: navigation, electronics, ballistics, cartography, terrain appreciation, military history, typewriting, photography, camouflage, cryptography, and unfamiliar languages. The importance of the development of work in physical education is very generally recognized; such development may include the enlargement of the physical education curriculum, the extension of requirements in this field, introduction of work, voluntary or regular, in such activities as obstacle-running and extended hiking, and a great extension of the program of intramural athletics in colleges not having already an extensive program in this field. Other types of extracurricular activities offer natural opportunities for the development of leadership, and there is room for ingenuity in the devising of still other such opportunities—particularly along lines of committee work or special projects in which faculty and students may cooperate.

As to element 5, the balance of courses in various divisions

now usually observed in meeting requirements for "distribution" is an ideal which may well have to be sacrificed for the duration. If it is clear that certain courses will be particularly valuable in enabling men to make their largest contribution, then they should be allowed to take those courses without regard to the regular limitations as to concentration. In some cases, particularly in colleges not having units of the ROTC, a "major" consisting of courses related to the war effort may well be designed and offered.

Assuming the adoption of such a basic program, it would follow, ideally, that pre-medical students and men who are planning to major or are majoring in other scientific fields should be allowed to finish the college course—provided always that they continue to manifest real ability. It would also follow, ideally, that all other men who have been admitted to college should be allowed to remain for at least one calendar year; that they should then take specially prepared tests, of the general nature of intelligence tests, and if they pass successfully, should be allowed to remain for another year; and that they should then take another and more severe set of tests, and if they again pass successfully, should be allowed to finish the college course.

Under these circumstances it would seem, ideally, to be desirable that all men admitted to college should become members *ipso facto* of a General Enlisted Reserve, assigned to the college for the continuance of their studies under the conditions outlined above. The question as to whether pre-medical and other science students, after graduation, should be inducted into the Army or Navy for specialized service or continue their studies on the graduate level should be determined upon the basis of senior examinations and upon the basis of needs as existing at the time. All other able-bodied college men should presumably be inducted into active service soon after graduation. This General Reserve should be, ideally, not under the divided auspices of the Army

and the Navy, but under the auspices of a single unified command—which is eminently desirable from the educational point of view, even as it is critically imperative from the point of view of fighting efficiency.

The program thus outlined is proposed not for the benefit of the individual student or for the benefit of the college—though it should benefit both the student and the college—but for the sake of efficiency and success in the war effort. The college should be on its honor to administer the program in that spirit, and should be free to work out the details of the program in its own way. No leniency should be shown toward students who do not keep their work up to a high standard.

To the program thus suggested as ideal, the program actually in effect in most American colleges in the autumn of 1942 corresponds in part, but only in part. Most colleges are remaining in session continuously, and most colleges are providing adequate or fairly adequate curricular offerings. The question of the restriction of college opportunities to those able to make the best use of them and the coordinate question of facilitating the admission of all who can make excellent use of them have not been tackled. That being the case, it is natural that the practice of enrolling all college men in an enlisted reserve has not developed. Meanwhile, in the absence of such a plan, the urgency of the need for sheer manpower is leading some draft boards to induct pre-medical and other science majors instead of allowing them to finish even the college course. This policy is very shortsighted, for it is at least as essential for the winning of the war to maintain a steady flow of doctors and scientists as it is to maintain a steady flow of enlisted men and of munitions. In the absence of such a plan, also, men who because of their general leadership and resourcefulness give promise of carrying those qualities into effective war service are at the present time being drafted before they have the chance to establish and develop those qualities

through more than a minimum of college study and experience. In this case the question as to the point at which they may most efficiently be drawn from college into active service is a very difficult one; in the case of those who give and maintain promise of medical or other scientific excellence there is no such difficulty—and failure to allow them to develop their special abilities would ultimately be disastrous.

Meanwhile, the Army and the Navy have both developed Enlisted Reserve plans—the Army a General Enlisted Reserve and an Air Force Reserve, the Navy its V-1 program, which feeds into its V-5 and V-7 programs, and a Marine Reserve. Furthermore, a considerable degree of inter-service coordination has been effected as among these several reserves.

6. Cooperation with the Army and the Navy in the handling of these reserves may be listed as a sixth appropriate war-time activity of the college, while it remains desirable that these special reserves should evolve into something more nearly resembling the General Reserve suggested above.

The ideal and actual programs outlined above concern the central effort of the college as regards the instruction of its men in general. It will be appropriate, particularly in the scientific aspects, for many women students also.

In addition to such a general instructional program, there are many special activities that a college may carry on as part of its total war program. Several such activities are outlined herewith:²

7. The maintenance of an ROTC unit, if already established.

8. The maintenance of a Civilian Pilot Training Program, if feasible.

² The present list of activities (including those numbered above as 1-6) represents a revision, reorganization, and expansion of the list contained in my article, "The Contribution of the Liberal Arts College to the War Program," in *University Administration Quarterly*, I (1942), pp. 258-266.

9. The encouragement of volunteer Red Cross courses.
10. The provision of voluntary training in the field of civilian defense, either by the college alone or in cooperation with the college community.
11. The giving of physical examinations to men students, with such corrective recommendations as may be appropriate.
12. The provision of facilities on the campus for the instruction and the housing of specialized Army or Navy units.
13. The offering of technical courses to civilians.
14. The carrying on, in the scientific laboratories, of research related to the war.
15. The provision of information as to the causes, the issues, and the progress of the war.
16. The provision of information and help with regard to the Selective Service System.
17. The encouragement of participation in appropriate forms of auxiliary work.
18. The sponsorship of sale of war stamps and bonds.
19. The collection of books to be sent to Army camps.
20. The development of gardening projects under college auspices.
21. The enlistment of college students as part-time helpers to neighboring farmers.
22. The occasional official and large-scale entertainment of men from near-by camps.
23. The making of various adjustments, academic and financial, for men entering the service.
24. The making of somewhat similar adjustments for faculty and staff members entering the service.
25. The maintenance of the most extensive and frequent contact possible, through personal correspondence and otherwise, with all graduates, former students, and members of the faculty and staff who have entered military service.

26. The provision of space for the protective storage of books or other valuable objects from coastal institutions.

27. The maintenance of a directing council or committee for the coordination and general guidance of the foregoing activities.

Comments on the types of activities here listed as 9, 13, 18, 20, 22, 23, 25, 26, and 27 may be found in the article referred to in the footnote on page 224. On the basis of very extensive and very rewarding experience, I venture to emphasize the importance of the activity here numbered as 25. Comment on the activities numbered as 14, 15, and 24 may be in order.

As to activity 14, scientific research related to the war may be carried on in either of two ways: projects may be developed by members of the faculty, and carried on by them as their own projects, the college furnishing necessary equipment and materials; or projects may originate in Government offices and be assigned, on request, to the college, and subsidized by the Government. Each plan has its advantages. The satisfaction of working on a Government-assigned project may be greater than that of working on a project not so assigned; but assignable projects are likely to go to large or specialized institutions rather than to the typical college, and a college should hardly wait for the assignment of projects if it has projects of its own which it believes to be worthy. Projects developed on the initiative of the college may be less directly related to immediate war necessities, and yet, even though more abstract in character, may turn out to be of great importance in their implications. Projects involving the cooperation of two or more departments may prove to be particularly significant.

As to activity 15, the provision of information with regard to the causes, the issues, and the progress of the war may be carried on in a credit course or a voluntary course, or in special talks and lectures, or through special types of library service, or in all these ways. It is certainly highly to be desired that college men

going into service should know why we are fighting, how we are fighting, and what we are fighting for. Men possessed of such knowledge may prove to be particularly useful in the camps in connection with the army orientation program which may soon be considerably developed.

As to activity 24, regular members of the faculty or staff—"regular" being defined, for instance, as "on indefinite appointment" or "appointed for a term not expired at the time of induction"—should be given leave of absence and, if necessary, reappointment for the duration, with the assurance that it is the intention of the college that their status on return shall be unimpaired. This is in accordance with the spirit of the Selective Service Act, and is obviously desirable from the point of view of the maintenance of morale. Even though payment of salary ceases, participation of the college in contributory annuity plans should continue, the men being in general expected to keep up their contributions currently or, after the war, retroactively.

Those active in the Institute of Military Studies at the University of Chicago, and some others, have believed it desirable that general pre-military training courses should be introduced for men in non-ROTC institutions and for non-ROTC men in ROTC institutions. Their views are stated in the *Proceedings* of the Conference on Pre-Induction Military Training, published in March, 1942, by the Institute. There is much to be said for this idea, but it has found no favor with the Army or with the War Department;³ the Army prefers to do its own military training, and the War Department respects that preference, and believes that time in college can be spent to better advantage.

Not as a direct contribution to the war effort, but as a collegiate undertaking related to the war, the college may well observe and record with scholarly care the impact of the war upon its

³ See the statement of Secretary Stimson quoted on pp. 261 f., of the article referred to in the footnote on page 224.

own life and work, and upon the life and work of its surrounding community.

POST-WAR PROBLEMS

The transition period.—After the war, the armistice. There seems now to be wide acceptance of the idea that the armistice, instead of being a brief interval between the cessation of hostilities and the signing of the peace treaty, should be a long period of physical, mental, and spiritual recuperation—a period at once restorative and preparatory, and lasting, perhaps, for several years. If that is to be the case, then we must prepare for our part in the armistice.

It is altogether probable that at the end of the war the greater part of Europe and the greater part of Eastern Asia, at the least, will be suffering terribly from devastations of many sorts wrought by the war. Famine and disease will be rampant, the economic system will be shattered, and civil disorder will erupt widely and frequently; and through the great devastated regions there will be a surging of desperate human tides, composed chiefly of the millions on millions of refugees, transplanted labor-slaves, and other victims of forced migration.

Such a situation can be dealt with only by international cooperation. That cooperation will certainly entail the long-continued presence of international military forces, concerned, as police, with the preservation of civil order; and it will entail the sending of a new army—an army of rehabilitation. The general preparation of the American portion of that army—a portion whose numbers will presumably run into the tens of thousands—is very largely a task for the American college.

The curriculum desirable for those who are to enter such work would be a combination of courses usually to be found among college offerings with courses of the various types now sponsored by the Red Cross. Among the standard college courses

of most obvious value would be the basic courses in the social sciences and in education, advanced courses in social work (including field work in underprivileged communities), and courses in the history and the languages of the regions in which the students expect to serve. There is indeed no field of knowledge covered in the normal curriculum, from physical education to music, whose contributions might not prove to be of value in some situation calling for the demonstration of the existence of community in normal human interests. It would be quite possible for a college to organize a sound and excellent major in studies related to reconstruction.

For the present, at least, practically all of the students preparing themselves for such work would be women; but it would be a very good thing for the men who are so soon to be called into the first and fighting army to know that preparation of the army of reconstruction is already under way. Ultimately the task will be one for both men and women; indeed, many of the men enrolled in the army will doubtless be employed in reconstruction, either while still under arms or as civilians.

The college will, of course, not be alone in the task of this preparation, though it should take a leading part therein. The final preparation should presumably be made in government training camps (perhaps in some of the existing army camps). Very probably each such camp would center its efforts on preparation for reconstruction in a particular country or region. This would make possible intensive work in the geography, history, and language of the particular region concerned—work which would be particularly necessary in the case of regions whose languages are not now generally taught in college.

THE FUTURE

Problems of the peace.—We are fighting not only to preserve that great measure of freedom which we have hitherto enjoyed,

but also to save and to establish the chance of working for the better world of which so many college men and women have had some vision. It is then right that the college, even now, should concern itself not only with the winning of the war and with preparation for the armistice, but also with the education of its students to face intelligently and with resolution the extraordinarily difficult problems of the ultimate peace.

This matter is one that should concern not only college women, but college men as well. For the understanding of the possibilities for post-war international and social advance should strengthen their morale—and that of their comrades—while they are in military service; and they will themselves have it within their responsibility and to a large extent within their power, after the war is over, to influence the pattern of the future.

The problems of the peace fall into two main groups. The first group comprises those problems which concern the establishment of some type of international or supra-national organization; the second group comprises those problems which we have been accustomed to think of as national rather than international. The manifold problems of poverty (and in particular the problem of unemployment) and the problem of race relations are among the largest problems of this group, which includes also—to take instances of a different type—such matters as public health and housing. But the two main groups of problems are themselves closely allied; it is becoming increasingly clear that most of the problems we have regarded as national can hardly be well solved except upon an international or a supra-national basis.

How shall we give our students the best possible background for the confrontation and the handling of such problems?

Certainly we must do something more than we have done in the past. For the political and economic leaders of our country for the last fifty years have been mainly college men, and their

collegiate experience has all too evidently not qualified them for such political and economic leadership as would tend to keep or to establish the peace, whether national or international. Either they did not receive and profit by sound collegiate instruction in the political and economic fields, or else the validity of that instruction was not so compelling as to enable them to withstand the pressures of tradition and of group interests by which they were inevitably so soon beset. If it is true—and it is true—that the United States, through its failure to understand the menaces of the international situation and to cooperate in the international enterprise, bears a very considerable share of responsibility for the development and outbreak of the present war, then the American college, in which most of our leaders spent four youthful years, must itself bear a large portion of the American responsibility. And if our own country has been racked with economic struggle, plunged into depression and unemployment, and embittered with racial antagonisms, then for this also the graduates of the American college, and the American college itself, must bear a large portion of responsibility.

The truth is that we as a nation have developed our linguistic literacy in high degree, but have hardly begun to develop our political and economic literacy. And the American college, whose curriculum has centered traditionally in linguistic studies, is still reluctant to give to social studies the place they must have in our common knowledge and our common thought if we are to succeed in the organization of peace. We are learning today that in time of war the natural sciences have an imperative priority; during the coming—and doubtless long—struggle for the organization of peace the social sciences should have a corresponding priority. Peace once established, the humanities may again resume their benign sway; but unless peace is truly established—and it cannot be established without the development of an unprecedented degree of political and economic literacy—

neither the humanities nor the natural sciences nor any other type of human culture can grow and flourish. (If this were the occasion, I could defend eagerly the thesis that education should normally be regarded *sub specie humanitatis*—but this is not the occasion for such defense.)

With reference to the organization of peace, therefore, the problem of the college is the problem of educating generations of students who shall be politically and economically literate. This we have failed to do in the past. How can we do it in the future?

Political and economic studies.—I believe the answer to be twofold: first, by a revitalization of college work in the political and economic fields; and second, by the frank requirement—after the war urgency has passed—that all students take a substantial amount of work in the fields thus revitalized.

The field of social science instruction needs a tremendous influx of imagination and of realism. Old categories, old patterns, old nomenclatures need the severest challenging; and in whatever courses are given from this time on illustrations and problems should be taken from current or very recent experience. For the students must be convinced of the relentless insistency of the problems concerned; and their interest must be held not only by the sense that these problems are contemporary, but also by impressive demonstration of the fact that only through the solution of these problems can man achieve a really humane level of peace and welfare.

That is the general principle. As to details, these two suggestions—by no means new—seem to me to be of particular importance: that classroom and library work in the social fields be supplemented just as largely and constantly as possible by field work, in various types of urban and semi-urban and rural situations; and that the men who teach these increasingly critical courses should be frequently allowed (or, if necessary, required)

to spend leaves of absence in work within the fields of actual political and economic activity.

In the political field, instruction should range from realistic study of ward and precinct organization and behavior—illustrated by participation as far as practicable, and by detailed observation at every election—to courses on the history and criticism of movements toward world organization. Courses specifically on the subject of the organization of peace are highly appropriate even now; among the ample material available of which copies could be provided at minimum cost for all students are the Reports of the Commission for the Study of the Organization of Peace.⁴

In the economic field, I personally should welcome a great expansion of field work, even to the national proportions (which would take it far beyond the college world) suggested in William James's great essay on *The Moral Equivalent of War*.

College curriculum and the world.—In all work undertaken with a view to preparation for peace, the college should keep in mind the fact that the significant world no longer consists of Western Europe and America alone (as has seemed in the past, to the college, to be the case, except for missionary purposes), but of a round globe in which the light falls as well upon many other regions, which have hardly come within the college purview hitherto. There should be a general effort, curricular and extra-curricular, to give all students a consciousness of the earth as a whole, of the reality and significance of life in regions hitherto unfamiliar, of the richness for us of the non-European cultures, and of the essential humanness of men and women of other lands. Much valuable work of this sort, including the exchange of students, is already under way: it should be very

⁴ The First Report of the Commission was published in *International Conciliation* for April, 1941; the Second and Third Reports were published by the Commission itself (at 8 West 40th Street, New York City) in February, 1942, and February, 1943.

greatly developed as soon as world conditions permit. Three regions in particular deserve—and are beginning to receive—far more study than has been accorded to them in the past: Latin America, Russia, and China. To each of these regions we are bound with bonds of increasing strength. It is within the duty of the college to do all it can to see that these increasing bonds are bonds of willing understanding and of intelligent goodwill. Our hope for the future posits the continued unity of the United Nations; the colleges may do much to strengthen that unity. With the nations now united still other nations may in time seek and merit unity; and the colleges may in time advance that further unity, insisting, however, that only men and nations that respect the truth in word and deed can in reality dwell together in true unity.

THE SURVIVAL OF THE COLLEGE

Immediate issues.—Meanwhile, the college is faced with the problems of its own health, its own strength, its own survival. Secondary though they are to the winning of the war, without which survival is impossible, these are nevertheless problems that the college has no right to disregard. A man may readily choose to sacrifice himself; an institution which is itself a trustee for society may not readily jeopardize itself, or accept jeopardy.

The college, for its life, must have teachers, must have students, and must have income. Under war conditions its younger teachers are being drawn away, its potential supply of students is being drastically reduced, income from tuition is thereby decreased, and income from endowments is decreasing also. These are grave dangers. The college cannot and does not expect or desire exemption from the hardships we all must share; but the college has every right to protect its life and strength in so far as it may do so without hampering the war effort or lessening its own contribution to that effect.

The college may not seek to withhold all of its teachers from the operation of the Selective Service System; but so long as the college believes its own proper continuance to be positively helpful to the war effort it has a right to point out to local Selective Service Boards that certain men are in fact essential to such continuance. And when its teachers are taken, the college is morally bound to seek the strongest possible replacements, difficult though the search may be, rather than content itself with line-of-least-resistance substitutions.

The college may not assert that the mere fact that a man is a college student gives him any claim for deferment; but if the college does in fact maintain a program effectively contributory to the war effort—as suggested earlier in this article—it may fairly seek the cooperation of the Government in its desired service through the education of men of pre-medical and scientific promise, or of general promise in resourceful and inventive leadership.

In respect to income the college must undoubtedly tighten its belt—even as other personal and institutional belts are being tightened; but if it is in reality giving significant support to the war effort, it has a right to let that fact be known, and to seek such gifts as will enable it to support that effort still more efficiently.

The college believes, furthermore, that it is entrusted with much of our hope for the future; and it is well justified—always within the tragic limits of the war emergency—in the defense of that great hope.

Higher education and life.—It has been characteristic of the college that it stood, in a sense, above time, and aside from the severest tensions of current social stress. Its release from the immediate present has sometimes led it astray into unreality; and its aloofness has sometimes endangered its responsiveness to human and to social needs. Yet there is a value, even in days like

these, in at least momentary return to quietness and vision; and it is well for the college—for members of the college individually and for the college corporately—to seek some such moments. The return cannot be long sustained; clangor and blackout are too near. But even amid clangor and blackout there may be memory of quietness and vision. And within that vision—a vision defined by reason but lighted by faith—the college foresees a humanity purified ultimately as by the fiercest of fire, won to allegiance to honor and to truth, and engaged in the achievement of such life as truth and honor may pervade.

UNITED STATES

IV

Land-Grant Colleges and Universities

BY

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LAND-GRANT COLLEGES AND UNIVERSITIES

LAND-GRANT COLLEGES

The Morrill Acts.—On July 22, 1862, in the early days of the Civil War, President Lincoln signed the Morrill Act. Five years earlier, Congressman Morrill had introduced a bill in the House which provided for the land endowment of a public college in each state. The bill had passed both houses, but was vetoed by President Buchanan. Having been elected to the United States Senate from Vermont, Justin P. Morrill introduced the same measure in the upper branch of Congress. Congress passed the Morrill bill promptly and President Lincoln signed it, thus inaugurating a national system of industrial and higher education that has reached great proportions and a new significance in the relation of the state to public education. The Act donated to each state 30,000 acres in the form of public land script for each senator and representative in Congress. In the Act the purpose is set forth in the following words: "The income from the sale of the lands shall be for the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such other branches of learning as are related to agriculture and the mechanic arts . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

The second Morrill Act was enacted into law in 1890. Under its provision each of the colleges received additional annual appropriations of \$25,000 for the advancement of teaching. Side

by side with the provisions for instruction, experiment stations had been established at the colleges by the passage of the Hatch Act in 1887. The Act provided annual grants of \$15,000 with which to carry on experiments and research in the field of agriculture. In 1906 the Act was supplemented by the Adams Law; later the Nelson and Davis Acts made further grants of money from the federal treasury. Another side of agricultural instruction was made possible in the field of agricultural extension through the authority and grants of the Smith-Lewis bill passed in 1914. Since that date the federal government has been authorized by Congress, under the Smith-Hughes Act, the George-Dean Law, the Clapper-Ketchum bill, the Purnall Act, and the Bankhead-Jones legislation, to increase the subsidies made to the land-grant institutions.

As the years have passed, federal grants have been supplemented by state appropriations which surpassed by large amounts the receipts from federal sources. Meantime, the institutions called land-grant colleges and state universities have grown into extensive educational agencies which have broad and comprehensive courses of studies, vast laboratories, considerable libraries, state-wide and national interests; they have become, in fact, the torch-bearers of the people in the states where they are located.

STATE COLLEGES AND UNIVERSITIES

Rise and development.—Following the general pattern of the Morrill Act, these state educational institutions fall into four groups: the separate land-grant college, the separate state university, the combined land-grant college and state university, and the territorial universities and land-grant colleges. Today there are nineteen White and seventeen Negro colleges of the first group; twenty-one of the second; twenty-six of the consolidated state university type; and four in the last group—institutions located in Hawaii, Puerto Rico, Alaska, and the Philippines.

Long before the passage of the Morrill Act, the state university idea had taken form in a number of states by enactment of charters and by the establishment of small and meagerly supported schools. The earliest state university is the University of Georgia, established in 1784, which was enlarged in scope the following year when its charter made all public education in Georgia a part of the University. In 1789 the legislature of North Carolina chartered a state university. Although the first session was held in 1795, no appropriations for public support were made until ninety years later. Now and then the earlier universities were included in the state constitution as in Indiana, Alabama, and Michigan. In 1820 a State Seminary was founded in Indiana, which became, by act of the legislature, the State University in 1852. The University of Alabama was founded in 1819 and named the State University in 1820. Maine University began its career as a college supported by the State in 1821. Among the earlier state universities, the University of Michigan, which was founded under a constitutional provision in 1835, began its work in 1837, and made good use of the congressional land grants for promotion of higher learning in the newly created state.

Each state college and university has its specific history, involving many ups and downs, for hard financial conditions were the lot of all of these in early days. As the state institutions of higher learning emerged from difficult times, they gained the support of the people, as evidenced in the large appropriations made for their maintenance, particularly in the richer and more densely populated states. Changes in support and in widened influence of the state universities were due in large measure to the growing understanding of the part an institution could play not only in the growth and development of educational opportunities for the people of a state, but in the solution of material and social problems. These problems have increased with the greater com-

plexity of modern life, and as the problems have grown in number the people have looked more and more to the state universities and land-grant colleges for help.

Enlargement of activities.—The result is to be seen in the enlarged activities of such institutions in nearly every field. Graduate schools have been established to continue the undergraduate instruction in agriculture, engineering, business, preparation of teachers, the arts, the social and natural sciences and other fields and also medical, dental, law, and other professional schools. Along with these developments in the educational field, extended research gathered impetus in commerce, and in social and industrial problems. Out of such activities, many institutes and special divisions for the prosecution of needed lines of research have been established. The results of the work done by the institutions brought them closer to the people and gained for the state university increased support. More and more the public officers of states and local governments call upon the state educational institutions for advice and assistance in finding a sound way to solve the problems of government, industry, and business. Seeing the value of unbiased study of problems of a social character, these agencies look to the state university for help.

Undoubtedly, the provisions in the Northwest Territorial Act of 1787 for the endowment of public education stimulated early consideration of a state university as new states were carved out of that vast area. The Act provided seventy-two sections of land in each new state for the support of a college. To let such a heritage go by was too much of a sacrifice for any territory contemplating statehood. In a number of instances the state college was recognized in the constitutions of the new states and in some of them the state institutions were given the status of a fourth arm of a state government that could not be disturbed by legislative act.

Administration.—The government of the institution was recognized in constitutions as resting in boards of trustees whose appointment was beyond the reach of politically minded governors. In many of the states the governing board of the institution was appointed by the governor with staggered terms of office. In other cases there were *ex officio* representatives, such as governor, superintendent of public instruction, and commissioner of agriculture, on the board because of the offices they held. The remaining members were appointed by the governor from lists of "eminent men and women" in the state. In recent years the demand of alumni of institutions for representation has been accepted and places have been made for them on the boards of trustees. Specifically, in the instances of Michigan and Illinois, the boards of trustees are chosen by the people at the regular biennial elections. These boards have the authority to govern and direct the institutions under their charge without legislative interference. The laws in some of the states permit the governors to remove members without cause, but the general rule is that the appointment is for the legalized term, a procedure which has been accepted by the people who look upon interference in the educational program as a violation of good government. Now and then there is a political flare-up that touches the educational institutions, but the larger and stronger land-grant colleges and universities are on the whole free from direct political interference.

Coordination and unification.—The existence of numerous state educational institutions in a commonwealth raised serious questions that led to the formation of boards of control and departments of higher education. The cause of the rise of this type of government organization goes back to the early days of the states in which such types of boards had been set up. The desire of new communities to have some sort of institution resulted in the separation of the land-grant college from the

university and the creation of separate colleges of mines, forestry, engineering, teacher preparation, and agriculture. Once established, all of these became competitors in the state legislature for funds to maintain them. The lawmakers, harassed and embarrassed by the demands and also cognizant of the conflict between institutions in the educational fields, looked to centralization and control as a means of relieving the legislative bodies from pressure and of bringing order into the states' educational systems. The policy of unification is not new; in 1784 there was created a board of regents of the University of the State of New York, which early established the policy of supervision without complete control. This example was not followed in the newer states, for the tendency was to place the state university and other public institutions of education under complete state control. The result was a more or less chaotic situation which, as time went on, the states tried to remedy by moving in the direction of establishing a state-centered program of higher education. In this movement boards of control, departments of higher education, and combinations of the two made their appearance.

Thirteen states have attempted to coordinate the functions of public higher education by the use of a single board. As early as 1905 the Florida legislature abolished separate boards and created one board to direct the state's institutions of higher education; this board is, moreover, subject to the control and supervision of the state board of education. The object was to unify all public education, a hope that has qualities of statesmanship in it, but which has brought political questions to the educational organization. Although the Georgia constitution recognized the state's system of education as within the scope of the University of Georgia, yet the wide implication of this constitutional provision was not fully recognized until the reorganization act of 1931 placed all of the twenty-five institutions of higher education under the control of the State University. In other states boards

of control have been created and given extended powers, sometimes with little modification in the functions of the educational institutions, as notably in the case of Kansas.

The Montana system has attracted much attention, since the law not only provides for a board of education under which state educational institutions carry on, but also creates the office of chancellor, whose function it is to coordinate the institutions in their course offerings and to encourage cooperation. The plan worked fairly well until the legislature refused to appropriate money for the chancellor's office, thus leaving the system to carry on under the board of control, without the coordinating agency of the chancellor's office. After the state of Oregon had experimented with a board of higher curricula, a plan which did not settle the inter-institutional disputes, a state department of higher education was created in 1929 and all institutions of higher education were placed under it. The problem in the state has been from the first a curricular one, a problem which seems to the observer to be in a fair way toward solution. With both curricula and consideration of functions in mind, the Survey Commission of 1932 in North Carolina recommended the union of the three institutions, the University at Chapel Hill, the State College in Raleigh, and the Women's College located at Greensboro, into one university, the larger University of North Carolina. After altering the existing organization of the institutions, a plan of cooperation, of administration, and of assignment of definite functions was inaugurated with such success that the University of North Carolina bids fair to become the outstanding example of a unified university made out of long entrenched institutions, and to maintain permanently the status of a unified state university.

Financial control.—A wave of budget-making and consolidated accounting procedure for all state organizations and institutions—penal, charitable, and educational—fell upon many of

the states in the twenties and thirties of this century. Unified purchasing agencies existed before that time, but the new move was largely the outcome of the demand for a consolidated budget. The state educational institutions, through their boards of trustees and administrative officers, protested vigorously against the inclusion of their financial transactions in budgets that included so many things foreign to educational needs and procedures. These college and university officers feared political control and domination of their everyday procedures by budget managers in the capital city. Outside experts were brought to the states to work out the necessary routines, forms, and methods. These men who were sent by the accounting experts to set up the systems were on the whole inexperienced in educational finance. Trained in industrial fields, in which the profit motive prevailed, they placed restrictions upon educational expenditures that proved in practice to hinder the best educational procedure. Nevertheless, the protest mattered but little and today the states have centralized budgets that are administered quite acceptably to the people of the states. The state universities and land-grant colleges in many states, notably Indiana, Illinois, California, and Michigan, have full control, however, over the funds voted by the legislatures for their support, though the expending officers must render extensive reports fully explaining the source of receipts and the expenditures of funds. The budget system in some of the states gives to the governor the power to scale appropriations if the tax receipts and other funds collected by the state government are below estimates or are less than the amounts appropriated by the legislatures.

During the depression period, 1930-38, when the pinch of reduced incomes and retarded business resulted in a marked drop in the revenues of the states, the state educational institutions were so greatly hampered that many of them, in order to balance their budgets, cut salaries and reduced expenses to the margin

maintenance level. This situation was particularly marked in those states in which the institutions were on a mill tax basis. As assessments went down the returns from personal and real property taxes fell to less than half of what had been received in good times. In Kentucky the State University was also the recipient of a share of the inheritance tax which had been granted by legislative act to supplement the mill tax. The budget plan proposed the return of all taxes to the general fund with no commitments, the supporting monies to be appropriated by the legislature. The logic of the situation was against the continuance of a mill tax; moreover, the change in economic conditions brought the heads of institutions to the acceptance of appropriations by the legislatures for the support of the educational institutions. While this change was going on in many of the states, in some the mill tax was continued and supplemented by appropriations that were increased as better times prevailed. In all the states where an inheritance tax was levied on the estates of deceased persons, because inheritances brought in large sums in some years, legislatures and state officers, seeing windfalls going to the university and land-grant college, raised questions about the wisdom of a law which permitted one branch of the government to profit in so large a measure. Today the support of the state educational institutions rests, in the main, upon biennial appropriations placed in the general budget and provided for by legislative grants from the general fund. Fees from students, the receipts from auxiliary enterprises, and money from endowments now go into the general treasury and are reappropriated. There is no tendency to take away from the state educational institutions these returns from such sources. While there are occasional clashes with state accounting officers, it may be said that a good deal of progress has been made in state financial management. Although sometimes the educational institutions may be hampered in purchases of general goods, there is no tendency to

interfere in matters relating to salaries, equipment, the purchase of books, or in the general management of the educational purposes of the state universities and land-grant colleges.

THE RECORD

Eighty years after.—The past year, 1942, marked the eightieth anniversary of the passage of the Morrill Act, upon which all of the land-grant institutions depend for their real beginnings and for much of their early support. It seems, therefore, an opportune time to look at the accomplishments of these institutions. In the reports of 1941 made to the United States Office of Education, every institution obligated to make a report did so. In consequence the figures for the past year are unusually complete, including, as they do, the returns from the 52 land-grant institutions for White students and the reports from 17 Negro colleges maintained by southern states as land-grant colleges. Enrolled in the fifty-two institutions called land-grant colleges and universities were a total of 259,034 students. Of this number 23,222 were graduate students, three-fourths of whom were men. In the colleges for Negro students the enrollment was 13,360 men and women. The number of degrees given to candidates in 1941 runs into large figures as shown in the granting of first degrees amounting to 40,904. The total number of graduate and professional degrees conferred was 29,056: of these 6,988 were Master's degrees and 1,317 were the doctorate. On the staffs of the fifty-two institutions listed as White there were 34,427 persons and in the land-grant colleges for Negroes the staff members numbered 1,219. Impressive as these figures are, they do not include the numbers of people engaged in the outside activities of the institutions in the fields of agricultural extension and university extension or in the numerous conferences and institutes held on campuses and in different parts of the states.

An institution that had an income of \$100,000 in the sixties,

or even later than that, was regarded as well financed in those days. In marked contrast with the smaller incomes of many decades ago, seven universities and land-grant colleges had annual incomes of more than \$5,000,000, 22 were recipients of between \$2,000,000 and \$5,000,000, and only 7 received less than \$1,000,000 annually. The largest income of the land-grant colleges for Negroes was slightly less than \$400,000. In the aggregate the income of the sixty-nine institutions, listed as land-grant institutions, was reported for the year 1940-41 as amounting to \$172,186,172. To this large sum should be added the amounts received from auxiliary enterprises, capital additions, and permanent funds which brought the total to \$54,716,198. In contrast to the income the expenditure for educational and general purposes totaled \$159,613,675. Of this sum 7.4 per cent was expended for administration and general purposes; 41.6 per cent for resident instruction; 13.8 per cent for organized research; 19.7 per cent for extension; 2.5 per cent for libraries; 9.9 per cent for plant operation and maintenance; and 5.1 per cent to carry on organized activities related to instructional departments, such as hospitals, clinics, research institutes, dairy farms, and forests. For capital outlays \$17,605,328 was spent; some \$32,600,645 was devoted to maintaining auxiliary enterprises, and \$2,868,883 to what is called non-educational expenses. It is interesting to note that the state governments provided 46.2 per cent of the total income. From the federal government came 18.3 per cent; from student fees 16.99 per cent; sales and services brought in 7.8 per cent; and the balance of 10.8 per cent came from endowments, private gifts, and various sums received from county and district governments. These institutions owned permanent funds aggregating \$181,304,626; the plants and equipment were valued at \$617,771,583, making a grand total of \$779,076,214.

Beginning with the first Morrill Act, 1862, the institutions have grown in plants, endowments, and income. The second

Morrill Act, which provided land endowments for the colleges, produced in 1940-41 an income of but \$1,292,207. Supplemented by other land grants, the total endowment receipts were \$5,035,000. Under the provision of the Public Works Administration and the Works Progress Administration great advance was made in the construction of buildings and in the improvement of campuses as well as in needed repairs.

Land-grant institutions and military training.—Such was the financial and material condition of the land-grant colleges and universities when World War II brought the United States into the conflict as one of the United Nations. During World War I these institutions maintained the Student Military Training Corps under the immediate supervision of the United States Army and Navy. The results from the operation of the Corps were satisfactory neither to the institutions nor to the Government. In the administration of the colleges and universities the institutions found their courses were broken down and little was accomplished in preparing students for officer status. The lessons learned from the experiences of 1917-18 have taught the Government and the administrative authorities of the colleges that much more can be done by cooperation and understanding than by the methods followed in World War I. The reorganization of the army and the establishment of the Reserve Officer Training Corps, provided in the Act of 1920, gave to the land-grant colleges and universities a very definite function. So well has this been carried out that there are now in the Army of the United States 85,000 officers who received their early training in the R.O.T.C. organizations of these institutions. In the period 1917-18 land-grant colleges and universities were called on to give instruction in the simpler forms of mechanics, motor car and truck operation, telegraphic communication, and signal corps procedures. In a few instances research in chemical warfare, and in sound detection under the sea and above it, was carried on.

As compared with what is being done in the present war the accomplishments of the institutions during World War I were not only simple but limited. The great progress made in the sciences and the application of principles developed by them, as well as the results of research, have been pulled into the conflict with terrific repercussions on old phases of war procedure. While the last war was designated as a World War, the present one is constantly referred to as an all-out global conflict involving not only armies, but the men, women, and children of every nation. The demand for manpower, munitions, machines, ships, information, means of propaganda, administration, and money to meet the vast expenses incumbent upon a highly developed war effort has resulted in a search for help, leadership, and guidance in every field. In January, 1942, the heads of educational institutions as well as members of faculties in special fields were called to Washington for conference, where they were told what confronted the nation in this global war, what was needed, and what the colleges and universities could do to help forward the cause of the United Nations. The response was made by resolution which declared that the colleges and universities of the land would do all in their power to help the cause, and to that end would devote their facilities, campuses, staffs, and students to the vigorous prosecution of the war.

The demands of war.—That the drafting of young men of college age would go on as rapidly as the Army and Navy could provide for their training was clear to anyone who looked at the situation. Such discernment brought out at once the proposal to shorten the time given to the four-year college course to three years by various devices such as the quarter system, the three-term division, and the continuance of course offerings through the summers. As a result the student would be able to graduate in three years and would cover the traditional work required in the two-semester system of four years. In every instance one of

these methods of consolidation was followed by the land-grant colleges and universities. Such revision in the time-schedule made it possible to scrutinize course offerings and to emphasize instruction needed in the war effort. Courses in chemistry, physics, nutrition, bacteriology, and other subjects were taught with the nation's needs in mind. New emphasis was placed upon research by making what the institutions were doing available to industries that needed guidance in war enterprises. Consultation with the best of the research men was encouraged so that the production of munitions, machines, and foods might be expedited. Research laboratories, moreover, have undertaken new and special research in problems upon which the government desires light and for the solution of which manufacturers, now called upon to do new things, need help.

To feed the nation and in addition to produce enough food to supply our allies abroad have placed an obligation and a heavy and difficult task upon the agricultural colleges and the experiment stations. Each state was given a quota on agricultural products which in time had to be assigned to farmers in different parts of the state. The task confronting the rural population was further complicated by the differences in the fertility of soil in various districts and the skill of the farmers living in them; the question was how to get the largest returns from the land. Fortunately the existing organizations of county agents, supervisors, Four-H Clubs, and the Agricultural Adjustment Administration were already at work. During this first year of the operation, very largely directed by the agricultural colleges, the food quotas given to the states by the United States Department of Agriculture have been reached. On the campuses the departments of home economics have been called upon to instruct and direct students, farm folk, and citizens about nutrition, the preserving of foods, and the care of children and houses. Under the direction of those departments numerous short courses have been

provided on the campus and in different parts of the state for the instruction of people who want to know about nursing, first aid, and dietetics. What is true of the departments of home economics is likewise true of other departments and colleges. The engineering staffs were asked to give short courses in many subjects in order that men in the Army and Navy may have some knowledge of the mechanical devices which they would be called upon to use.

Attention has also been directed to student morale in order to arm the men and women on the campus with a background of the war. Such endeavors have taken the form of defense committees, special lectures, radio talks, and courses outlining the developments preceding the war, as well as the history of the peoples involved. Instruction in languages has been emphasized to give students preparation for service in foreign lands during the war and afterward. Nor are the library staffs indifferent to the demands made upon the institutions for information. Key Centers of War Information sponsored by the United States Office of Education have been established in all of the state universities and colleges. Materials in the form of books, reports, articles and other items of interest have been brought to these repositories and have been made available to all who care to use them. The Key Centers, by means of forums and interviews, explain the issues involved in the war and give guidance and emphasis to war activities of students and citizens. The departments of political science, economics, and history have scanned their offerings and have sometimes found them wanting in the materials and instruction about war, finance, distribution, and background. Changes and additions have been made, hurriedly perhaps, but at least the new courses show an awakened interest in the problems of a democracy in war-time.

The custom in educational institutions has leaned hard in the direction of physical education by proxy. The student body has

been prone to limit its physical training to the easy way of taking its play by watching the contests put on by the athletes on college teams. The war has placed a new emphasis upon physical training and in consequence the departments of physical education have acquired a greater importance that may have a considerable bearing upon the future student's preparation for his part as a soldier and citizen.

An important contribution to the winning of the war is to be found in the work of able and earnest men who have been called to the help of the government from the staffs of institutions. More than 10 per cent of the faculty personnel of state colleges and universities have been called to such duties. Administrative officers have cheerfully accepted the situation though they need must wonder what will be the outcome of the reduction in staffs not only at the present time but also when the war is over and institutions have resumed their normal place in the educational procedure of the nation.

THE FUTURE

The lessons of experience.—What the immediate future of land-grant colleges and universities is to be can be seen in their past. Loss of able members of staffs has, as a matter of course, affected the teaching and course offerings in many institutions. The emphasis upon short courses, defense subjects, and special types of training has reduced the number of students registering in the regular curricula. Graduate student numbers have declined by at least 70 per cent, and the number of men of student age called into the armed forces before they can finish their education has reduced the regular student attendance. For the "duration" the number of men on the campuses may remain stationary, but the instruction is in a large measure confined to short courses limited to a quarter or a half year. The government has planned to send men to the institutions for technical

training; these men, however, cannot be regarded as college students in the customary use of that term. On the other hand, women students, attracted by the openings in many fields for the well-trained, will increase in numbers. Because of the decline in high school attendance evident all over the country, the available college material will not be as great as it has been unless the federal and state governments provide scholarships for youth of ability who do not have the means with which to pay college and school costs. Moreover, the demand for lower taxes after the war, as well as new competition for public funds to meet the costs of pensions, social service activities, and rehabilitation will affect the revenues which might otherwise be designated for state higher education.

Certainly the state colleges and universities will learn much from their experience in this war. While the number of students in the graduate schools will be reduced, new emphasis will be placed upon thorough training in the sciences, in history, in political science, and in administration of business and government. The junior college may have a larger place in the earlier education of the youth, will doubtless move away from the traditional arts offerings and take on more vocational instruction. The movement appears to be in a direction that will transform the state universities and land-grant colleges into institutions engaged in filling the function of a university as we know it in this country. That function is preparation for the professions, graduate work, and research. In a land awakened by the changes wrought by the war the need of expert men and women thoroughly trained may well be at its height. Communities, states, and the federal government, having large functions to perform, will lean heavily upon the state universities and land-grant colleges for planning and for study of problems and administration. The future holds much for these institutions to accomplish under greater difficulties than they have faced in the past.

UNITED STATES

V

Graduate Study

BY

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GRADUATE STUDY

THE IMPACT OF WAR, 1941-1942

Immediate results.—The year 1941 was no ordinary year in the record of progress of graduate studies in the United States. It was a year of uneasiness, of uncertainty, of interruption. Selective Service legislation had made inroads upon the student body, swift calls from Washington uprooted many a staff member, plans of curtailment were hastily inaugurated by graduate deans and councils. In December, 1941, the outbreak of war accelerated all trends, and by the close of the normal academic year, June, 1942, many departments in various fields of graduate study were hard put to it to complete the year's work. Statistics, not yet available, will reveal a sharp falling off in graduate student numbers as the spring term drew to a close. Despite the fact that many departments made a brave attempt to maintain a full program of work and enlist a full quota of scholars and fellows for the ensuing year, it became apparent that graduate study would not and could not proceed as usual.

In the fields non-essential to the war effort there were teachers, but relatively few students. First men with reserve commissions disappeared, then students classified as 1-A were withdrawn from the universities in ever-increasing numbers. In addition the graduate summer school population decreased as the woman teacher failed to make her customary appearance. Hundreds of scholarships and fellowships were conditionally awarded, with faint hope that the recipients would arrive in the fall. In primarily male graduate schools women took the majority of these prizes for the first time in the history of graduate study.

To a surprising degree, however, the professor and the student were at a premium in the war effort. In traditional fields, those aside from medical and technical study, the physicists found themselves in a unique position. It was quickly ascertained that the nation was pitifully undermanned in the field of physics. These indispensable scientists were quickly gathered together in three or four major centers and put to work upon tasks closely connected with the war effort. In many cases their graduate students followed them. As injunction followed injunction that more graduate students be diverted into this field, it became clear that this would be difficult, for many departments of physics had already disintegrated under the government policy of centralized research. The principal concern of the hard-pressed university and college was to man a few undergraduate courses in order to care for increasingly large groups of undergraduate engineering and premedical students. Indeed, anyone who had ever studied physics was pressed into this service. One point is clear, that in the post-war era physicists must be recruited regardless of cost or sponsorship. If necessary the federal government should assume the responsibility for the training of an adequate number of physicists.

Chemists and psychologists were also needed. The withdrawal of chemists was less precipitous but, on most campuses, formidable. By June of 1942 hardly a department presented a full roster of chemists. Many left for official service, others had joined private industries engaged in war production. The need for the psychologist became clear when it was realized that through research this specialist had worked out tests that were indispensable in classifying men, thus eliminating the expensive process of selection through costly training experience. The old army intelligence tests of World War I were superseded by a large variety of discriminating tests of fitness for many branches of the service. Notably the work of the psychologists in the several Air

Classification Centers has saved the government millions of dollars and millions of precious hours in the training of aviators. In these centers are several hundred psychologists and their advanced students.

The civilian branches of the war effort have drained off hundreds of specialists. Linguists by the score found their services in demand; historians fitted readily into information and propaganda bureaus; statisticians were soon at a premium, while economists and public administration experts were needed in the work of production and rationing. The situation is unusual indeed where the professorial staff has not shrunk 20 per cent since Pearl Harbor, and where the graduate school enrollment has not fallen 40 per cent.

One is forced to conclude, first, that graduate work of first order will be unobtainable in many disciplines as long as a state of war endures; and, secondly, that the period 1919-1942 should be treated as a separate epoch in the history of graduate study in the United States. One must postpone, perhaps for years, consideration of such time-honored questions as the basic assumptions of graduate work, the competence of institutions and departments to offer graduate work, the selection and weeding of graduate students, the overcrowding of fields, and the improvement of the standards for the various degrees. One, too, would like to speculate regarding the future course of graduate work in the United States; whether the war will radically affect its trends, whether the humanities will have suffered an irrecoverable blow, whether the sciences will tend further toward bifurcation, whether the social sciences will continue their growth, whether applied fields such as public administration will tend to supplant the more speculative, philosophical disciplines, whether the traditional disciplines will be able to maintain their integrity, and so on. But this does not seem fruitful at the moment.

RETROSPECT: 1919-1942

Increasing enrollment.—The number of graduate students in arts and sciences alone had grown by 1941 to an annual enrollment of nearly 50,000. If graduate professional students are included the number would be almost double. The most influential factor in the phenomenal size of the graduate student body was the tremendous increase in undergraduate numbers during the last decade. The illusory prosperity induced by the credit inflation, together with the enduring conviction that the college degree was financially and socially desirable, catapulted boys and girls into institutions of higher learning at a rate unknown in the history of education. The total number of higher institutions in the United States rose to about 1,700, the number of students in the colleges and professional schools to well over 1,250,000. Junior colleges sprang up all over the land, and professional schools such as teachers colleges hastened to offer a liberal arts program in order to help with the overflow. The economic depression beginning in 1930 halted the trend, but by 1937 it had resumed, although at a reduced pace. The incidence of demand for teachers at the college level was reflected in graduate school enrollments, and demand competition was active enough to promise for many young men, and not a few young women, an economically satisfying career in the profession of teaching. However, two phenomena gave pause; one, the depression with its "lost generation" of Ph.D.'s; second, scientific forecasts of the oncoming generation of college students based upon genetic and economic data. J. J. Spengler in his article, "Population Trends and the Future Demand for Teachers," *Social Forces*, May, 1941, warned that higher education will be best served by concentrating capital upon that group of institutions that has given the best performance in recent years; that the present number of institutions cannot be maintained. The population decline is about to

be felt in the colleges and universities, and, if all existing institutions continue, it can be done only through standard-reducing devices. He observed that "only a reorientation of secondary and college curricula to the needs of a dynamic democracy founded upon technology can cushion the effect of continuing decline in fertility." The technological nature of modern warfare lends a measure of weight to this statement.

Returning to the period under discussion, 1919-1942, it should be noted that at its close 25,000 Master's degrees per annum were being granted by 300 separate institutions, and approximately 3,000 Doctor's degrees by 100 institutions. The physical sciences, the biological sciences, and the social sciences, in about equal proportion, were in 1940 responsible for about three-fourths of the doctorates, and literature for fully half the remainder. A meaningful classification, taken in the year 1938-1939, lists as follows the number of doctorates in the ten subjects in which more than 100 degrees were granted: chemistry, 482; education, 289; English literature, 174; physics, 165; economics, 150; modern history, 138; biochemistry, 127; psychology, 123; botany, 108, and zoology, 102.

The doctorate.—Before the outbreak of war about 10,000 students were annually studying for the doctorate alone. Training for research had become the monopoly of the university. In spite of all criticism the system is democratic in the sense that there is equality of opportunity. About 6,000 fellowships or scholarships are available to graduate students, and one student in every seven holds a fellowship. When consideration is taken of liberal tuition exemption and of the widespread system of graduate assistantships one must conclude that some financial support may be had by the great majority of all graduate students almost for the asking. Perhaps, as R. M. Hughes has suggested, fellowships and other subventions are more and more being granted to assist the needy rather than to encourage the able. Sample studies

reveal that, in the light of later performance, it is questionable whether major fellowship-holders are more distinguished than other graduate students. "Whether we need more fellowships or more care in awarding those now available is an important question." Experience with National Research Council Fellowships in the natural and physical sciences shows that only 220 of the 1,100 recipients have demonstrated outstanding research ability. A third of all Ph.D. graduates in the natural sciences, about 4,400, applied for these fellowships, and these applicants in turn were the superior group out of the 14,000 recipients of the Ph.D. degree.

In 1941-1942, as in the years preceding, the Ph.D. degree, and for a much greater number the M.A. degree, was an end in itself. Dean R. G. D. Richardson's study revealed that about one-third of the Ph.D. graduates in mathematics continue in active research. Jernegan in 1926 concluded that less than 25 per cent of Ph.D. degree-holders in history were continuously engaged in research. However, the recent study of Hesseltine and Kaplan in the field of history ("Doctors of Philosophy in History," *American Historical Review*, July, 1942) indicates that in the decade 1926-1935 over 50 per cent of those receiving the degree had publications to their credit and gave promise of continued productivity. Perhaps one must correct upward the generally accepted conclusion that but 20 per cent of Ph.D. degree holders are able in research. All that one can hope for is constant effort in our universities to discourage students not fitted for the rigor of graduate study, and enduring vigilance in safeguarding the standards and integrity of the higher degrees.

THE PROBLEM OF SELECTION

Enrollments and quality.—The period 1919-1942 has not been wanting in serious study of the inadequacies of the program of graduate study. Indeed, no sooner had one group reported than

another began an investigation. Dean Richardson of Brown University in 1935 gave the impetus for the most recent group of studies by raising concretely a series of questions that had been continually suggested throughout the period of expansion. Few doubted that large enrollments had a tendency to dilute the quality of graduate work; that they tended to increase the proportion of mediocre students; that they placed a heavy burden upon the university faculties, often hampering research; that they carried in their wake a placement problem of large dimension; and that, when analyzed, the whole system was likely to become a drain upon the financial resources of the universities. In theory practically all graduate school administrators accepted these and other obvious criticisms but seemed unable or unwilling to curtail enrollments. At the close of the period the principal certificate of admission to the graduate school was the bachelor's degree, and although professors railed against crowded seminars, mixed graduate-undergraduate courses, piecemeal programs of study extending over years, and the supervision of theses in astonishing numbers, the old *laissez-faire* system went on practically unchecked. Carl C. Brigham's confidential study, *Graduate Training in the Social Sciences*, for the Social Science Research Council (1938) is a detailed investigation of these particular disciplines in more than a dozen American universities. Here again the testimony was overwhelming that little selection was being exercised and that a large scale mediocrity was interfering with the progressive improvement of graduate instruction and study.

The existing situation is rationalized at every turn. The administrator in the state institution fears that decreasing enrollments might adversely influence his appropriations, while in the endowed institution it is thought that large classes may eventually pay the cost of maintaining the graduate school. Oddly enough, the *amour propre* of the professor is an overlooked

factor in this curious situation. Many actually rejoice in the size of their seminars, and in the strength of their personal following. Few seem aware that their energies are being consumed, their researches ruined, by the presence of hordes of graduate students. Furthermore, under this system, the professor to maintain prestige must also win a reputation for subsidizing students and for obtaining jobs for them. He has become a promoter, arranging various deals to place his students. Thus positions of leadership in graduate work have tended to fall into the hands of men endowed with qualities other than scholarly achievement. Perhaps the only argument that might be advanced for the retention of such a system is that in spite of such confusion the superior graduate student is able to fight his way and prevail. The intervention of the war will furnish a much-needed opportunity for reflection concerning these matters.

Tests for graduate study.—The most hopeful method for selection of graduate students that has appeared during recent years is the testing program of Dr. William Learned and his associates in the Carnegie Foundation for the Advancement of Teaching. These tests, tried out in several Eastern graduate schools, attempt to obtain through examinations an accurate description of the potential student's intellectual horizons and the extent of his mastery in his chosen field. At some future time performance in such tests may constitute an important criterion for the admission or rejection of graduate students. The graduate school really needs these basic data regarding the intellectual calibre of its student population. Not enough time, however, has lapsed to reveal whether there is a close correlation between performance in these tests and achievement in graduate study. During the years 1933-1937 the Social Science Research Council, as an experiment, made a serious effort through competitive examinations to find means to discover potential social scientists of first rank. The top men in these examinations were awarded fellowships

through three consecutive years of graduate study. Too few students, ten a year, were involved to enable any scientific generalizations. Some certainly maintained the brilliance they exhibited in their examinations, but others did not live up to expectation. A proportion were handicapped by unsatisfactory personality. Here again, as in other phases of graduate work, there has been serious effort to cope with a fundamental problem. Perhaps it is not too much to hope that some day an "aptitude" test for graduate study may be universally used. If it contributes as much to the proper selection of students as the medical aptitude test contributes toward the selection of medical students much will have been gained. Such tests at least will serve as an aid in the selection of students, and, if they are universally employed, one may obtain the clue to the differentials in college preparation alleged to exist among various parts of the country.

RESPONSIBILITY TO THE TEACHING PROFESSION

Preparation for teaching.—Another matter agitating the educational world, and involving a majority of graduate students, has been the alleged need for specific training in the science of teaching. Many college administrators have argued that there should be less insistence on research, and a recognition of a need of pedagogical preparation. This opinion is shared by college teachers themselves, particularly the younger men, and by many men preparing for the doctorate. The graduate schools and the university professors have adhered to the view that there is no better training for college teaching than that of research. Hessel-tine and Kaplan, in the article referred to earlier, allude to the whole matter as a curious controversy. They assert that teaching and learning are one and the same thing; that teachers not actively engaged in research and publication are failing in their duty to their college, their students, and their profession. They condemn the administrator who seeks "good teachers, not re-

search men." This policy, they argue, is in reality a device to protect his budget, for research activity is expensive, requiring first-rate laboratory, library, and other facilities, as well as expenditures for grants-in-aid and sabbatical leaves of absence. Others maintain just as stoutly that the intellectual environment of many graduate departments is such that the young Ph.D. arrives on the college campus determined not to allow his duties to interfere with the prosecution of his research activity.

A decade ago the University of Chicago made a survey of its Ph.D. group engaged in teaching in institutions of higher learning. The sample, which excluded the older and also the most recent Ph.D.'s, was 400 in number. In 183 cases no weaknesses as a teacher were reported; but in 176 cases one or more weaknesses were noticed. Intellectual attitudes and abilities were criticized in comparatively few cases. Furthermore, 363 persons were credited with notably strong points as teachers. Of only ten persons was it said that no notable elements of strength could be reported. Large numbers were scored as "interesting," "industrious," "enthusiastic," and "stimulating"; other characteristics frequently noted were scholarship, knowledge of the subject, clear and correct presentation of subject matter, thoroughness, effective organization, and interest in students. In conclusion this Chicago Senate Committee on Graduate Study and Graduate Degrees raised two pertinent questions; first, whether some students have not been recommended for teaching positions in higher institutions who were clearly unsuited by their personalities for the work involved; second, whether more attention should not be given, in training prospective teachers, to the technical problems of university and college instruction. Thus this report throws responsibility squarely upon the graduate schools. About the same time, 1932, the Association of American Colleges strongly recommended to the graduate schools selective admission of prospective college teachers to the graduate schools, train-

ing in methods, a course on the American college, some relaxation of research, and a check on teaching ability. To these Edward Baxter in his article, "The Teaching Ph.D. Again," *Educational Record*, January, 1939, would add instruction in the psychology of the college student and experimentation in the field of college teaching.

Mr. Baxter's questionnaire, upon which his article was based, reveals that this question is still being agitated. It also reveals that many graduate institutions intend doing something about it, sometime. However, he learned that only one-fifth of the graduate schools ever take the trouble to ascertain of the Ph.D. student whether he plans to enter the field of college teaching. It seems a pity that even the mild and eminently sane proposals of the *Report of the Committee on College and University Teaching*, reprinted in the *Hughes Report on Graduate Instruction* (1934) and elsewhere, have been disregarded in the graduate schools of the country. It does not seem too much to ask of the responsible institution that its graduate departments give some consideration to methods of teaching and to teaching under supervision. If the assistantship system, so widely prevalent in our universities, cannot be used for this purpose, its opponents may indeed have a point to their argument that it is essentially a means of exploiting the graduate student. Certainly, also, it would cost little for the graduate school to maintain a seminar on problems of American education, available to large numbers who know that their livelihood is to be gained through college teaching. Indeed, the present ostrich policy assumes that American college education will never, never change in its basic assumptions—a very strange doctrine to hold anno Domini 1942. If such a seminar were established the graduate instructor himself might find it profitable to attend, if only to keep abreast of informed opinion. In passing one might note that the *Harvard Report on Secondary School Teaching* (1942) calls attention to the fact that present-

day students in the colleges and in the lower schools have never lived in an era of peace and have never experienced a stabilized society, economically or spiritually. Finally, with the problem of teacher employment growing more and more acute, it would seem that a university with any degree of foresight would make some acquaintance with the state teaching requirements. It may be the aspiration of every graduate student to take the Ph.D. degree, but actually only a small proportion ever obtain it. Thousands terminate their graduate study at the Master's level, and many of them will be employed in the secondary schools where some knowledge of teaching method and practice is all but mandatory. It is an indictment to have to acknowledge that indifference to this situation in the graduate schools has automatically debarred many an able young Master from the teaching profession.

A REGIONAL CONSIDERATION: THE SOUTH

A record of progress.—Regionally, it should be noted that the South has during recent years made encouraging strides in graduate work. To be sure, this growth has to some degree been accompanied by expansionist tendencies, fostered by the emphasis of departments of education and ambitious accrediting agencies upon the appointment of teachers with the Master's degree. However, beneath this superficial current of immediacy, there is a record of solid achievement. In 1934 the Hughes Report, sponsored by the American Council on Education, endorsed only 42 departments in the South out of 661 for the nation at large. Taking a long view of American education, it is not impertinent to suggest that no one section of the nation should be permitted to lag too far behind. The incidence of history since the Civil War long threatened to bind the South permanently to an abject role in American education. The story of the rebirth of education and learning in this section is dramatic when one possesses

a full knowledge of the tremendous handicaps under which the section labored. The writer has no patience with the invidious comparisons made between long-established graduate schools and those of the South. Southern graduate education, in that region a public need, has risen from ashes. It has risen in spite of a great poverty, and without any bolstering traditionalism regarding its implications. It has risen despite low salaries, and the absence of library and laboratory facilities. A record of progress in this area is to be found in Pipkin's summary article, "Some Phases of Graduate Work in the Southern Regions Since 1935," Southern University Conference Proceedings, 1940, pp. 126 ff. This substantial progress is impressive. Aside from occasional and ill-advised forays of degree-granting on the part of a few teachers colleges and state universities, every advance in graduate work in the area has been well planned and sedulously guarded. The reluctance of Southern graduate schools to advance to the level of the Ph.D. degree is commendatory.

Perhaps the progress in pooling institutional resources has been the large characteristic in Southern graduate work. The University of North Carolina and Duke University, Vanderbilt University and Peabody College, Emory University, the University of Georgia and the Georgia School of Technology, are in various stages of affiliation and mutual effort. Other types of cooperative effort have followed, reaching, significantly, toward the Negro in one direction, and toward the college and the junior college in the other. Nor have the Southern state universities, as such, been lacking in progressive activities. In this new South the governmental agency is an institutional device to be reckoned with. These agencies are far more than administrative; they are preoccupied with the development of their respective communities. In all the Southern states there is the closest rapport between the universities and the agencies, both state and federal. In future years this mutual association will have a large

influence upon the direction of graduate studies. At present the development is just beyond the consultative stage. Soon there will be a demand upon the graduate school for men who are trained in fields and skills necessary for the welfare of the public. In the years to come one going over Pipkin's ground will no longer complain of the blind complacency of the area in granting 40 per cent of its advanced degrees in the field of Education. In the past five years, although there has been a noticeable gain in work in economics, statistics, sociology, and public administration, as yet only 15 per cent of graduate students are in social science fields in contrast to more than 20 per cent in the natural sciences and 20 per cent in the humanities. The only danger that one can foresee is that of particularism in problem imposed by state lines, and lack of cosmopolitanism in student personnel.

The South does lag badly, however, in certain types of graduate training. Only 2.7 per cent of all degrees are awarded in the vital field of technology; only 1.1 per cent in medicine; and less than 1 per cent in religion. These are fields of vast importance in the South. The first is essential in coping with poverty and overpopulation; the second, where vast public health services will be needed for generations; the third as a corrective to the stark emotionalism rampant especially in certain rural areas.

THE POST-WAR GRADUATE SCHOOL

Responsibility to society.—The graduate school of the post-war generation will be different from that of the period 1919-1942. The shift of highly trained men from the campus to the governmental agency and to the privately-controlled laboratory and business will increase. The monopoly of the university upon training has as yet not been seriously challenged. However, the graduate schools of the Nation must take cognizance of the varied objectives of their student population, and guard against the assumptions and rigidities for which they have become almost

notorious. Graduate deans and committees must be prepared to spend as much time in working out the individual student's program as a first-rate college faculty spends in advising its undergraduate majors. Above all, the graduate school must learn to think in terms of students instead of departments. The sacred Chinese walls among departments must be crumbled forever, and with them must go the rigid adherence to quantitative majors and minors. If the graduate school confines its outlook to the preparation of college teachers, potential specialists will look elsewhere for their training. And, even here, as has been suggested, the time has come to do a better job. Furthermore, no one graduate school can hope to excel in all departments of knowledge. E. V. Hollis stated the case succinctly when he wrote: "Almost no graduate department can hope to secure the physical facilities, the staff and the operating budget to prepare teachers, administrators, and research workers for the numerous levels of higher education, for the several levels of precollegiate education, and for the varied specializations in government, industry, and commerce. To be of maximum benefit to its advanced students and to the society which they serve, graduate schools must face realistically all of the issues inherent in restricted offerings, selective admissions, and effective placement."

In the decade 1930-1940 the number of Ph.D. degrees awarded annually rose from 1,910 to 2,632. At the end of the decade, and some months before the outbreak of war in December, 1941, according to the estimates of Hollis, institutions of higher learning employed only 60 per cent of these degree holders. This shift, which has taken place for the most part since 1934, "indicates a trend of major social significance." Of these highly trained specialists no less than 18.3 per cent were employed in industrial and commercial enterprises, with a two-thirds majority of the group in chemical and allied industries. Federal, state, and local governmental agencies employed 8.4 per cent of the decade's

Ph.D. degree holders, with three-fourths of them in federal agencies and the remainder in state and local agencies. Increasing groups were to be found in private welfare and health agencies, in the agencies of elementary and secondary school education, and in the field of religious work. In the face of such evidence graduate school administrators and professors must take stock and cut the cloth accordingly. No administrator can hope to maintain a precious uniformity of policy from department to department, much less from student to student. Time was when the graduate student in medical science, public health, or industrial chemistry was alternately humored or condemned as a kind of biological sport. The day of the "special" student in the graduate school has ended; most graduate students will be special students. The trend was never more marked than in 1941-1942.

Perhaps in the era that lies ahead one will wish to re-examine the article of President Bowman, *The Graduate School in American Democracy* (1939), issued by the U. S. Office of Education. This statement arose out of a series of discussions participated in by a score of graduate deans and educational leaders during 1937-1938. The purpose of the inquiry was "the development of a clear statement of the functions of the graduate school with reference to its relation to the Nation's resources, both human and material." Unlike most educational commissions it was agreed not to write a bill of particulars but to rivet attention upon the basic assumptions of graduate study and the relation of such assumptions to the American environment. Those participating in the conferences sought the common denominator in what they were doing and in what they were striving to attain ultimately. The primary assumption that emerged was that the nation, even the human race, is dependent upon the incessant single-minded search for truth; and that the graduate school is one of the most favorable environments for the growth of intellectual power and discovery.

In the graduate school, it was suggested, one may gain through study an understanding of the realities of experience. Knowledge itself is but an incomplete revelation that is constantly enlarged by new investigation. Here is actual proof of how men make progress through learning, for here one obtains experience in the most rigorous, most critical methods of work. If the training be comprehensive and broad, there is obtained an appreciation of man's physical environment, his relation to it, and of man and nature in interaction; also an experimental knowledge of the way the modern world works: the interaction of man and man, group and group; and, finally, the acquisition of a philosophy embracing all men understandingly in their different environments, occupations, and cultures.

Both the practitioner and the scholar share in human advancement. A trained practitioner uses learning and may contribute to it, but his expertness is directed mainly to applications of knowledge in fields of action and use. The scholar consciously seeks, and sometimes finds, probable cause and effect, introduces examples of conscious social improvement, and thus assists in lifting life above the level of fatalism.

Society is an important conditioning factor in the development of graduate study and research. This must be recognized: the graduate school cannot be narrow; it must serve not only the student and the university, but it must reach out to society in general. In fine, the creative forces loosed in the university must eventually react in social behavior. In this pronouncement, as in every other discriminating study of the past five years, there is ever repeated the conviction that the graduate school owes a responsibility to democratic society, and that, if benefit to that society is to result, it must set its scholastic goal far above average. In war and in peace it must never become unmindful of its primary responsibility to society and to the Nation.

UNITED STATES

VI

Higher Education of Women

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HIGHER EDUCATION OF WOMEN

CURRENT PROBLEMS

Diversity of aims.—The problems concerned with the higher education of women in the United States are numerous and difficult to solve. There are many reasons for this, but the chief one is that the nation has no uniform idea of why women should receive a "higher education." Could this problem of problems be solved the others would be comparatively simple. A casual search through the literature on education, through the newspapers and current magazines, an open ear to the conversations of every day, make it clear that the aims of women's education are a sort of pudding stone or conglomerate of many ideas, with a few outstanding components, held together by a general consensus of opinion that higher education is valuable for women as well as for men. Educated women are supposed to become the conservers of our heritage of knowledge, they are to be the morale builders in the time of stress, they are to lead their children in the ways of culture, they are to be prepared to enter into plans and activities for civic betterment, they are to become informed citizens, they are to lead richer and more satisfying lives because of their education, they are to be better prepared to earn a living. All these and many others are the reasons one finds.

In this article a few of the more common ideas will be brought out and traced to some of their sequelae in educational procedure and the results in post-collegiate life whether of the present-day or the post-war world. Education must be considered from the standpoint of its impact upon living, at least in this modern, very practical world.

For most women students of the present day, so far as I have been able to ascertain, marriage after college is the desired and expected thing. This has probably always been true of the majority, but for a few years when women were struggling more consciously than today for their right to a "place in the sun" politically and economically, there was great emphasis upon a Career (so important as to involve spelling with a capital). Then, when their mothers and aunts had to a certain extent achieved their desired recognition and opportunities, the next generation settled back more comfortably to an idea of self-development and marriage, with a career very decidedly secondary. Some of the more active personalities among them began to visualize the fact that home-making was in itself a career, but this emphasis was weak except where it was concerned with preparation for a salaried vocation. Instead, the idea of education for self-development held sway over thousands of students, administrators, and college faculty members.

Education and life.—To this era belongs particularly the idea that education (in itself) will save the world—that by some magic the mere possession of knowledge and the "ability to think" will result in strength of character, sense of responsibility, and ability to work anywhere and anyhow. That this idea was inadequate to real life is now painfully apparent. There are many indictments of women's education, one of the most sweeping being that in the book *Women After College*, a study by Robert G. Foster and Pauline Park Wilson. They say: "Those educators whose job it is to educate for life have seemed unwilling to tackle the job of real and vital education. . . . The findings of this study leave no doubt that education did little if anything to prepare . . . the women of the group to meet their actual life problems." Thomas Otto Walton, president of the Agricultural and Mechanical College of Texas, declares that "Higher Education has failed to meet the exigencies of the

times," and that "We must recognize a lag between what colleges and universities are offering youth in the way of training and what this youth needs to fit him for a place in society."

In other words, there is fresh emphasis on the realization that we are to educate our sons and daughters not for themselves alone but for the society of which they will soon become the leaders. This has, of course, been the intent of education among primitive groups from prehistoric times to the present and has only been overlooked from time to time by the peoples or groups who considered themselves so highly cultivated, so powerful and so safe, that they could afford "culture for culture's sake." The new-old educational ideal of today has been tersely expressed by A. Carneiro Leão of Brazil: "Education, it is clear, must be organized to meet two important demands: (1) the needs, interests and potentialities of the individual, and (2) the needs, interests and potentialities of society." The second of these two demands has been somewhat neglected in the liberal arts college, at least, and has been glimpsed, in general, only in a narrow field, by the professional schools.

Furthermore, the self-development idea has not produced the desired results in the individual. Being ego-centric in its essence it has been ingrowing and warping, in that it has often omitted the idea of responsibility. Ralph Barton Perry calls to our attention the long-neglected fact that "If a society is to be democratic its members must be not only free and enlightened, but humane. . . . Their choice will then be a choice not in their own narrow behalf, but in behalf of the total group or of mankind to which they belong."

SOCIETY AND THE EDUCATION OF WOMEN

Contribution of women.—The war has brought out an emphasis on education for democratic ideals and everywhere through our educational institutions the call is for "education for democ-

racy." That this is true for both men and women is self-evident, but the educators of women are beginning here and there to realize that it may be true for women in certain especially womanly ways. Woman, say many writers, is by nature more definitely interested in human relations than is man, and more powerfully activated by her sense of the personal. If this is true, to any extent, we should and can discover how this may be made useful to society and to the individual through education. Thus far it is an almost untrodden field of thought, except in certain details concerned with health, child-care, and home-making. These latter, of great importance as they are, by no means cover the whole problem of woman's possible contribution to human relations.

Most colleges and universities have apparently taken for granted that, women being human beings, as are men, they should be identically educated except for certain types of professional education. But here and there a voice has been raised in protest, as, for example, that of Eugene R. Smith of Beaver Country Day School, who says that such a belief has blocked progress in that it has been substituted for a scientific attempt to adapt higher education "to the general needs of women," and to those of particular "sub-groups and individuals." President Blunt of Connecticut College is another who is clear in her own mind that there should be "some slight difference between the higher education of women and that of men. Women need the same kind of general education as men because they are the same kind of human beings, but they do have certain differences of function . . ." President Park of Wheaton vigorously writes: "To be human does not mean to be identical. Until women recover from the desire to imitate men in all their ways, civilization will lag. How should education differ? That is a question which can only be answered as women find their place in the life of the world." Recognizing this principle of the great effect of "the

life of the world" President MacCracken of Vassar believes that "The higher education of women will differ from the higher education of men to the degree that environment and heredity influence the choice of studies. . . . It does not seem to me a question of fitness so much as the existence of certain opportunities and interest capacities among women." This, he makes note, refers to the general run of women students and does not refer to those "who will transcend the general environmental conditions and create their own conditions." Chancellor Wilbur of Stanford University expresses a similar viewpoint when he says: "In my opinion, higher education for women should be exactly of the same quality as that for men. I think, though, that it is bound to differ in some degree in the various fields of interest, since the lives to be followed by women and men after graduation often vary."

Differentiation in education.—Many colleges make the whole matter of differentiation in education one of the individual, rather than one of sex. Goucher College goes about it in what might be called an experimental way. First postulating the question of "what a Goucher graduate should be and be able to do in terms of life activities" they set up eight general objectives, and the satisfying of these objectives is the criterion of success for each individual. Thus it comes about that each student may be educated in her own best way and there is no question of whether it be a man's way or a woman's way, for it is the individual's way. President Marvin of George Washington University states it thus: ". . . it depends upon the demands of life, the type of personality, and the backgrounds of any man or woman, as to what should be included in the curriculum."

Another angle of approach is expressed by President Eddy of Adelphi College—that any differentiation should be "largely a matter of emphasis and degree rather than in the nature or kind of education." President Warren of Sarah Lawrence gives as

her main reason for believing in a separate college for women that "it is very important that in whatever course she takes she have an opportunity to bring to the point of discussion any implication which the material may have to her *as a woman*"—an opportunity which is seldom given in a coeducational classroom.

It seems probable that with the greater emphasis upon education for responsibility there will be a clearer insight into the needs of society which can be served by women, and the curricula or methods of our institutions of learning will show the effect.

The young women themselves take too little part in the policy formation of their education. They are considered too young and inexperienced, and it is certain that it would do little good to seek their opinions unless we were first to give them information on which to base those opinions. A little of this is being done in a few places, and those educators who are using the system consider it well worth while. President Warren says in her book, *A New Design for Women's Education*, that large numbers of college girls want "emphasis on family relationships and adjustments, on marriage, on human biology, housing, woman's part in the economic world, on understanding one's self, children and other people." I believe, furthermore, that a thorough study of the elections of courses by women in the liberal arts colleges would show a definite trend in their thinking, an increasing interest in psychology, in social studies such as economics, government, sociology, religion, and philosophy, as well as an increased interest at present in the sciences (due to their immediate usefulness).

Professional and graduate studies.—That higher education is considered of value by young women is made clear by the greatly increasing numbers who go to college, university, or professional school. Until recently the general trend for both men and women was toward increase, but the proportion of women to

men was rapidly moving upward. F. Lawrence Babcock in his book, *The U. S. College Graduate*, says that some forty years ago the proportion of men to women in higher education was more than four to one, but that it has gradually changed until within the last decade there have been more than two women to every three men. Moreover, the present crisis in which young men are being rapidly sifted out of the colleges for Selective Service or for other war activities is making the proportion of women still higher. Paul Hornbeck, Director of the School and College Advisory Center, has even predicted the largest enrollment of women in the history of American colleges, and President Raymond Walters of the University of Cincinnati considers that in most coeducational institutions women are a large factor in maintaining the total enrollment for 1942. Whether this trend will continue will depend in part upon the rapidity with which industry converts its manpower into womanpower, and in part upon the ability of the educational institutions to meet the realistic demands of the modern girl, for an education that is satisfying for the present and for the future.

NEW EMPHASES

Entrance requirements.—A comparison of the catalogs of 1913, 1930, and 1942 shows clearly that as far as admission to higher learning is concerned there have been certain marked and important changes in the direction of liberalization and modernization. There is now far more emphasis on sound health, somewhat more on psychological or so-called "intelligence and aptitude tests." There are fewer prescribed units and more willingness to consider unusual preparation. However, it is to be noted that comparatively few subjects are allowed to count for entrance other than strictly old-line academic ones. Music and art have edged in to a considerable extent, but vocational subjects are still much in the minority. Certain subjects, such as

sociology, civics, economics, and "social studies" are taking the place of the large amount of Latin and mathematics that was formerly required. Colleges and universities make an attempt to show the student that there is a relation between subjects studied in secondary and higher education. Certain of the secondary schoolmasters declare that the colleges still hold too tight a checkrein on their rapidly-moving educational policies and plans, but the colleges give rope very slowly.

Curricula.—In the curricula everywhere year by year there has been appearing a much richer offering, far more subjects and far more courses in those subjects. Women now, whether in co-educational institutions or in women's colleges, have an opportunity to choose the sort of work they want and hence to indicate whether or not they want anything different from what their brothers elect. This has always been true as far as different professional schools were concerned, and one of the quickest ways to determine what sort of education women want (whether because of their tastes or their future possibilities), is to note the numbers who attend schools of nursing, home economics, and secretarial and library schools, as compared with the numbers who attend schools of law, medicine, divinity, and liberal arts. As an example take a single university, Syracuse University, which in September, 1942, had elections in home economics, nursing, education, fine arts, speech, secretarial science, and business education, nearly three times as great as those in liberal arts, medicine, and law combined. This is not true in all universities, but in the majority there is a similar trend. Even among those women who attend colleges of liberal arts there may be seen a differentiation in elections, in spite of the fact that tradition and educational policy in general lead in the direction of identity of elections between men and women. Here the elections of women tend toward the humanities and certain social studies, and of men toward the sciences, economics, and

political science. (Sweeping generalizations can always be challenged; and the above statement is, of course, not true of some institutions.) As an example may be taken the University of Michigan, in which for the years 1939-1940 to 1941-1942 there appeared elections each year with a distinct "bias." The proportion of women to men is greater in English, fine arts, French, journalism, Latin, library science, psychology, social studies, social work, sociology, Spanish, and speech; and the proportion of men is greater in chemistry, economics, geography, geology, physics, political science, pre-business, pre-law, pre-medicine, and mathematics.

Impact of the war.—The impact of the events at Pearl Harbor and all that they signify has made a convulsive change in the curricula of the liberal arts colleges, and in the elections of students, both men and women. All over the country women students have been profoundly affected. There has been a sharp turn to the sciences, to government and politics, to history of the Western Hemisphere and the Far East, to a study of nutrition and health. Arts and letters have gone down in many places, and hundreds of women have found themselves quite unexpectedly and suddenly in courses on electronics, meteorology, navigation, cartography, statistics, remedial speech, psychology of propaganda, public health, economics of war, the democratic philosophy, Latin American studies, geography, foreign policies, defense of religion, and many others either strictly academic or partly so, but for which the colleges and universities are giving academic credit in their double-quick pace to make education count for war needs. A few colleges even have what are called "War Minors" for women majoring in other types of subjects.

The war is bringing one great benefit to women students, that is the greater opportunity for graduate work. So many young men have been drawn away from the graduate schools that new opportunities and new fellowships are now open to women. The

paradox is that many of these women who ordinarily would be overjoyed by the prospect are now turning instead to salaried posts of one sort or another. Many, however, are already engaging in important pieces of research and great numbers of others are taking advantage of the unwonted opportunities to begin their graduate study.

One of the greatest changes of the immediate present is the emphasis upon the acceleration program whereby a student may obtain the degree in less than four years by means of summer study. Since most coeducational and coordinate institutions have stressed acceleration or made it possible, the opportunity has been open to thousands of women. Among the women's colleges only a few have made a point of an accelerated program. There has been a certain amount of controversy over the problem, contending views being expressed, but the majority take the middle ground that acceleration for women should be considered on the basis of the individual student. Throughout the colleges efforts were made to guide the students to sensible use of the summer, whether in study or work, war-time jobs or volunteer services.

In line with the acceleration program many campuses were kept open in the summer of 1942, and many projects other than the usual academic ones were actively functioning. As an example among the women's colleges may be cited Mount Holyoke, in which a summer school with the avowed purpose of acceleration was established, to which students came from many other colleges and universities. At the same time four other groups were working and studying there or making it their headquarters. The International Student Service had a group of whom half studied recreational leadership in the city of Holyoke and half worked on the farms. The National Youth Administration sent girls who worked in the Holyoke factories. A unit of Engineering, Science and Management Defense (later

War) Training trained young women college graduates in methods of factory management. Toward the last of the summer the French University of New York (*l'Ecole Libre des Hautes Etudes*) held a session at the College and many French scholars foregathered with Americans and other nationalities for study and discussion.

The great numbers of extra-curricular courses in which women engage, in addition to their studies, are of much educational value as well, for they also train in the mores of our society, they add to the powers of logical and quick thinking, they develop the character and give opportunity for self-development in control, in cooperation, in leadership, in human relations, and in many other ways. If, as Sir Elliott Smith, the English anthropologist, has said, the mind learns by the skills of the body, then also many of these extra-curricular activities have what may be called an intellectual value as well as practical usefulness. In the present day they have one added grace, that of satisfaction of the need of the individual for activity in service toward America's war aims. A list of those activities connected with the war would fill several pages and run all the way from Red Cross work to repairing trucks and helping on the farms.

Miss Marion G. Hermion, Director of Public Information of the College of St. Elizabeth in New Jersey, made a survey of the emergency programs of New Jersey women's colleges for the committee of the American College Publicity Association to cooperate with national defense. She lists the following: the training of women to replace men in industry, on the farm and in civilian defense; the alliance of college women with community agencies in civilian defense and auxiliary war activities; the emphasizing of physical education; the building of iron morale in the women citizens-to-be by a study of why the war is being fought; and the assumption by already heavily burdened faculty members of additional duties on and off the campus. Although

this surveys only the women's colleges of one state, it is representative of the work of women in many parts of the country—possibly somewhat more in the East and West than in the center of the United States, thus far.

An increasing number of projects are undertaken in connection with the community in which the colleges are located, and many young women are gaining experience invaluable both to themselves and to the society of which they will later become active and trained citizens. Rockford College students made a practical survey of the city government which the city has published. Queens College helps in planning programs for study groups of all sorts. Pennsylvania State held a conference for housewives. The students of many colleges give radio broadcasts, go out as speakers, help in hospitals, settlements, and refugee and war-relief agencies, and other similar institutions. The whole matter gives concrete evidence of the fact that the American college woman is alert, and taking a lively advantage of her educational opportunities.

Guidance.—One of the educational gains which is being made, perhaps more for women than for men, is in the field of guidance and personal counseling. All colleges are becoming increasingly conscious of the need that students have for the considerate counseling of older people. Progress is being made in methods. Many persons still think that all that are necessary as qualifications are interest and common sense. Certainly these two are a *sine qua non* for any success, but of course they are not enough. Given the initial character suitable for advising (and the possession of such a personality is not too common) the addition of training for the job makes a great improvement. This is true not only in the matter of personal understanding, gained from records, from tests and measurements, from conversations, etc., but equally so in the realm of vocational counseling, where the adviser must know not only the individual student but the

vocational opportunities as well. Women make exceptionally good counselors, and this may be looked upon as potentially one of their special fields of work in the future. At the present time college personnel work, as it is often called, is of especial importance because everywhere is maladjustment and everywhere are arising determination, courage, and the spirit of service. Great and unaccustomed opportunities are open to young women, on which they need information and for which they do not know how to prepare. College appointment bureaus are over-taxed and personal counselors are finding their problems overwhelming. Some wag has said that "a counselor should be not only informed but experienced in poverty, riches, marriage and divorce, deeply religious, philosophical, and possessed of a sense of humor"!

CAREERS FOR WOMEN

Adaptability.—What college-trained young women do with their education after college is the examination question on which collegiate education may be said to "pass or to fail." Here there is great disagreement, and there is no possibility of weighing education in the balance and stating whether or not it is "found wanting." It is clear that it has not been of as vital service as it should have been, but certain facts can be presented which indicate that education really has passed muster for great numbers of its graduates. In the first place there is the fact that it has apparently made many of the college graduates both flexible and able, as is seen from the large number of married women holding positions during the depression years, and the number doing work of a somewhat unusual character. That they have been able to turn to various sorts of work, that they have shown initiative and originality, that they have had a sort of "practical sense" may be due to their native endowment, but when their record is compared with that of non-college women

it would seem probable that their education added to their abilities along these lines and made their potential powers active. Babcock says that in 1940 many more women college graduates than non-college women were holding positions, and that "employment is an almost universal rule among college graduates" except for housewives (employed at home) and those beyond the work age limit.

Where there are so few statistical studies one looks for the straws in the wind and of this sort is the small but significant item that, in the objective tests given to both men and women by the National Committee on Teacher Examinations, college candidates had greater success than the others, in proportion to the number of years of higher study, from the Ph.D. down to no degree.

What college women are doing may be judged by the activities listed by the American Association of University Women. They are taking their place as substantial contributors to the work of the world both in paid posts and in volunteer work; in their homes, offices, libraries, schools, hospitals, factories, in business, and in the various other occupations.

They are to be found taking a large share in the work of philanthropic and religious organizations, civic betterment projects and welfare work, serving on school boards and occasionally entering the field of politics. All too few take an active and informed interest in politics and related subjects. Their education has quite evidently been at fault here. When war broke out in Europe it was found that there was the most pitiable lack of interest and knowledge on the part of American women (and men) students, but Japan's perfidy has done them an invaluable service, for now their knowledge and vital interest have massed up like a pyramid. One of the notable differences between this war and the last, says President Comstock of Radcliffe, is that there is a greater knowledge on the part of women and that

they take a more professional attitude toward the war and toward war-services.

In the present emergency they are showing great elasticity in their ability to take on new types of work and modify accustomed patterns of living and of thought. Miss Margaret Hickey, member of the Missouri bar, says of women that "All the essential services and functions of our business, industrial and professional life will be looking for beginners and potential leaders with college background"—and that we who are their counselors are realizing that "the basic consideration is, 'not what I want to do,' but the very realistic and practical one, 'what needs to be done'." Thus we find the numbers of women already increasing in aeronautics, in engineering, in office management, in probation and parole work, in health and recreational programs, in the field of consumer relations, in radio, photography, and many other fields where formerly the numbers were very small, but where now the need is great.

THE FUTURE OF WOMEN'S EDUCATION

Education and society.—What, then, is to be the future of women's education in the post-war period? Already some educators are beginning to glimpse the problem and to make very tentative suggestions. They refuse as yet "to enter the field of prophecy"; but one can find everywhere in the magazines, in newspapers, in lectures, in letters and conversations, the rising tide of belief that women's education in the future will be a more useful thing both for the individual and for society, that it will be more considered and essentially suitable, that it "will become a more genuine preparation for a useful and rich life" (Eugene R. Smith). Many are convinced, as is Dean Payne of New York University, that "Education will have to play a more significant part than it has in the past." I. L. Kandel wrote of public school education in 1938, "The task of modern education

is to adapt instruction to the abilities and capacities of pupils, to build on the environment in which they live, and to extend and enrich that environment." If this be also true for college students, then the future education of women must take into account not only their intellectual abilities and tastes, but also their special aptitudes and personality, their attitudes and emotional adjustment, and the actual life they will lead after college. What they will do and what they will be, will be of as great importance to the educator as the matter of what they will know. Women students will not only be informed but active.

What are to be the specific changes by which this will be brought about is not yet certain, but it is very interesting to bring together the ideas of many educators as expressed thus far. It is taken for granted that scholarship is to be maintained, that there is great need of the true scholar, and that the coming education is to be thorough and firmly grounded. Beyond this there are certain general statements that appear again and again in different form. Health, physical hardness and endurance, with a special biological emphasis for women upon the race as well as the individual, stand in the forefront of the aims of the new education. Character education is mentioned as often, with all the attendant emphasis upon training in mature judgment, emotional stability, and sense of responsibility. A third component of the new education stressed again and again is work education. For women this means not only salaried vocations but also the myriad parts of home-making such as child-care, the creative arts, family economy, control of property, and disbursement of funds. The fourth, but by no means least important in the minds of the educators, is training for citizenship. Dean Gildersleeve of Barnard says, "We must give them, without being frightened off by charges of indoctrination, a more positive and constructive and dynamic conception of American institutions and the aims of our nation."

If these aims are indeed to take a place of front rank beside the older ones of development in the use of the intellect and information for culture's sake, then of a surety there will be sweeping changes in curriculum and method. Here, too, a few of our foremost educators have dared to postulate possibilities. To the end that character education shall be resurrected from the cupboard in which it has been stored since the earlier days of American colleges, there will be better programs of guidance carried out on a larger and more considered scale. Psychology and sociology, philosophy and religion will be taught in a way to give background for practical living. For health there will be more physical education definitely planned for that purpose, and in closer cooperation with the physicians and other counselors. There will be much more information concerning hygiene, both physical and mental, individual and social, and much in the way of biology. For work education there will be better vocational guidance and more actual teaching of career subjects, as well as the pointing up of other subjects toward their relation to a practical world. Finally, for citizenship, there will be far more emphasis on history and government, on international matters, and on American studies of every kind.

Will these prophecies take shape? No one knows, of course, but they express the line of thought of many of those who are writing and speaking of women's education in the midst of war.

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